CITY OF WORCESTER.

FIFTY-EIGHTH

ANNUAL REPORT

ON THE

Health of the City

BY

A. J. B. GRIFFIN, M.B., Ch.B., D.P.H.

Medical Officer of Health.

1931.

WORCESTER:

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Public Health Committee.

Mr. Councillor A. Cope (*Chairman*).
The Mayor (Miss Councillor D. E. M. Ogilvy).
Mr. Alderman H. A. Leicester, J.P.
Mr. Alderman W. Sharpe.
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Mr. Councillor H. Baker.
Mr. Councillor R. M. M. Beach-Hicks.
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Mr. Councillor O. Spares.
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Mr. Councillor A. Cope (*Chairman*).
Mr. Councillor T. Duckworth.
Mr. Councillor R. R. Fairbairn, J.P.
Mr. Councillor G. W. Peck.
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Mr. Councillor F. L. Spalding, F.R.C.S., L.R.C.P.
Mr. Councillor W. Shakespeare.

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Mr. Councillor H. Baker.
Mr. Councillor W. G. Day, J.P.
Mr. Councillor O. Spares.

Housing Sub-Committee.

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The Mayor (Miss Councillor D. E. M. Ogilvy).
Mrs. Councillor C. S. Bukcle.
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Mr. Councillor R. R. Fairbairn, J.P.
Miss Councillor E. M. O'Brien.
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Mrs. Councillor R. Palmer, J.P.
Mr. Councillor B. Frank Stratford.
Miss James.
Lady Middlemore.
Miss Jessie Tree.

Public Health Staff.

Medical Officer of Health and Tuberculosis Officer	A. J. B. Griffin, M.B., Ch.B., D.P.H.
Consultant Medical Officer	Mabyn Read, M.D., D.P.H., M.A.
Assistant Medical Officer of Health - - -	Miss Marion Andrews, M.D., D.P.H.
Public Vaccinator - -	Mr. W. G. Bennett, LL.B., M.R.C.S. Eng., L.R.C.P., Lond.*
Vaccinator, Municipal Homes Hospital - -	Mr. S. C. Legge, M.R.C.S. Eng., L.R.C.P. Lond.*
Dental Officer - - -	Mr. M. J. Matley Moore, L.D.S., R.C.S.*
Public Analyst - - -	Mr. C. C. Duncan, F.I.C., F.C.S.*†
Veterinary Inspectors -	Major E. Franklin, M.R.C.V.S.* Mr. H. B. Hiles, M.R.C.V.S.*
Chief Sanitary Inspector -	Mr. Ralph Taylor.‡§
Assistant Sanitary	Mr. P. L. Parsons.‡§
Inspectors - - - -	Mr. H. Jackson‡
Matron, City Isolation Hospital - - - -	Miss N. Glew.
Tuberculosis Nurse - -	Miss A. Cooke.

Health Visitors - - -	Miss E. O. Digby.¶ Miss S. E. Howard.¶ Miss F. A. Moore.¶ Miss A. Steele.¶
Senior Clerk - - -	Mr. P. M. Christian.
Assistant Clerks - -	Mr. J. Everett. Mr. W. J. Lee.
Maternity and Child Welfare Centre Clerks -	Miss H. Bale.‖ Miss D. Ellery.‖ Miss E. Stevenson.*
Disinfector - - -	Mr. C. A. Webb, Jr.
Manager, Public Slaughterhouses - - - -	Mr. A. R. Underwood.
Vaccination Officer - -	Mr. E. H. Rea.*

*Part-time only.
†Services utilised by arrangement with County Council.
‡Inspector's Certificate of Royal Sanitary Institute.
§Certificate of Royal Sanitary Institute for inspecting Meat and Other Foods.
‖Joint appointment—M. & C.W. and School Medical Service.
¶Trained Nurse and Certificate of Midwives Board.

Summary of Vital Statistics.

The following represent the chief vital statistics for the year, viz:—

		Compared with those of the 107 County Boroughs of England and Wales.
Estimated Population - -	50,850	
Birth Rate - - - -	15.1	16.0
Recorded Death Rate - -	13.76	12.3
Infantile Death Rate per 1,000 Births - - -	63.7	71
Death Rate from principal Infectious Diseases - -	0.235	1.07
Respiratory Death Rate -	2.08	1.198 (1930)
Phthisis Death Rate - -	0.922	0.69 (1930)
Cancer Death Rate - -	1.51	1.003 (1930)

The Fifty-eighth Report of the Medical Officer of Health being that for the year 1931.

To the Right Worshipful The Mayor, Aldermen and Councillors of the City of Worcester.

Mr. Mayor, Ladies and Gentlemen,

The report I have now the honour of submitting for your consideration, deals with the health and sanitary circumstances of the City during 1931.

In accordance with the instructions of the Ministry of Health the report is an "ordinary" report as distinguished from the fuller "survey" report submitted for 1930. Some of the subjects mentioned have, therefore, been referred to somewhat briefly, but it is trusted that no essential information has been omitted.

Health administration in connection with other services has been effected by the need for national economy and no new developments in public health work have taken place.

The proposed and needed extensions at the City Hospital have accordingly had to be postponed; and the erection of a new combined Welfare Centre and School Clinic in keeping with the City's standing has likewise been shelved. The chief aim has been to run the existing health services as economically as possible, and no fresh capital expenditure has been incurred.

Several public health developments are, however, long overdue, and sooner or later expenditure on buildings and staff must be faced if the City's health services are to be brought to a higher level of efficiency.

The Registrar General's estimate of population, allowing for the three months in the year during which the City's population was increased by the population of the added areas, has been given as 50,850—a figure which is discussed elsewhere. It is, however, upon this figure that the Vital Statistics have been based.

The Death Rate of 13.76, whilst higher than that of the preceding year, compares not unfavourably with the rate for England and Wales of 12.3, considering the large percentage of older lives at risk within the City.

The Birth Rate of 15.1 represents the lowest ever recorded with the exception of the years 1927—1928.

The Infant Death Rate of 63.7 shows an increase of 11 points over 1930; but is still well below the rate for the 107 County Boroughs, which has risen from 64 to 71 over the corresponding period.

Elsewhere an analysis of infant deaths throws light upon the raised figure for Infant Mortality.

There has been no undue prevalence of Infectious Disease; and when account is taken of the wet sunless summer and of the continuance of overcrowding and unemployment, the health statistics for the year are satisfactory.

Advantage has been taken of the Housing Act 1930 steadily to represent for demolition a number of unfit houses and to secure the repair of others: though much still remains to be done towards slum clearance.

The extension of the City, bringing within the City areas of a lower sanitary standard, has thrown upon the department an increase of work out of all proportion to the size of the extension; but by improved transport facilities it has been possible to carry on the work without increase of staff or salaries.

There have been no changes in the Staff—to all of whom, and to Dr. Mabyn Read, Dr. Andrews and Mr. Ralph Taylor in particular, I am indebted for loyal co-operation and help during the year.

To the Chairman and Members of Committees concerned with Public Health work, I would wish to express my thanks for the sympathetic reception they have accorded to suggestions brought before them, and for their continued interest and support in public health matters.

I am,

Mr. Mayor, Ladies and Gentlemen,

Your obedient Servant,

A. J. B. GRIFFIN,

Medical Officer of Health.

Statistics and Social Conditions.

Area (in acres)				5,393
Population (Census 1931)				50,497
Registrar General's estimate				50,850
Rateable Value				£313,224
Sum represented by a penny rate				£1,222
Live Births:—	T.	M.	F.	
Legitimate	736	377	359	
Illegitimate	33	16	17	769
Birth Rate				15.1
Still Births, 32; Rate per 1,000 live births ...				41.6
Deaths, 700; Death Rate				13.76
Percentage of total deaths of deaths occurring in Institutions				32.2
Number of women dying in, or in consequence of, childbirth:—				
From Sepsis				1
From Other Causes				2
Death Rate of Infants under one year of age per 1,000 live births				63.7
Deaths from:—				
Measles (all ages)				1
Whooping Cough (all ages)				3
Diarrhœa (under 2 years of age) ...				—

Social Conditions.

Population.—In mid-1929 the Registrar General computed the City population at 52,320; which, in 1930, allowing for the excess of births over deaths of 185, made a 1930 mid-year population of 52,505.

Actually when the Census was taken in 1931 the City population was given as 50,497—a diminution since 1929 of some 1,823 despite the excess of births over deaths.

Since October 1st, 1931, the City's population has been increased by 1,140 persons brought within the City boundaries by the City Extension: so that at the end of 1931 there were, according to the Registrar General, some 51,597 persons living within the City.

As the population of the added areas only came within the City for the last quarter of the year, some adjustment has to be made, and the population figure for mid-year, 1931, is given as 50,850.

When one considers the natural population increase by excess of births over deaths; the continuance of overcrowding, and the amount of building that is going on within the City, one is forced to conclude either that the figure for the 1929 estimated population was inaccurate, or that the 1931 census failed to enumerate all the City's inhabitants.

Occupations.—No important changes have taken place during the year in the occupations of the City's inhabitants; and the variety of occupations has prevented the City feeling the full blast of unemployment that single industry towns have experienced.

The highest unemployment figure was 3,104 in March, and the lowest 2,216 in July.

Meteorology.

Daily observations are made at the City Waterworks, and for the following details I am indebted to the City Engineer:

The highest temperature reading was 76° F on June 28th and August 4th, and the lowest 20° F on March 10th and December 19th.

Rain fell on 178 days, a rain-day being one during which .01 inches of rain or more is recorded.

The following tables give particulars of the rainfall throughout the year, and the annual fall compared with that of the previous 19 years:

1931.	No. of Rain Days	Rainfall for Month
January	20 ...	1.41
February	17 ...	1.89
March	4 ...	.18
April	20 ...	2.86
May	17 ...	3.91
June	11 ...	3.45
July	17 ...	2.68
August	16 ...	4.21
September	13 ...	1.84
October	9 ...	.68
November	20 ...	3.25
December	14 ...	.72
Total	178	27.08

Comparison of Rainfall for the past 20 Years:—

1912	...	...	33.35	inches
1913	...	...	26.11	,,
1914	...	...	24.11	,,
1915	...	...	31.60	,,
1916	...	...	25.29	,,
1917	...	...	21.18	,,
1918	...	...	20.47	,,
1919	...	...	24.84	,,
1920	...	...	25.62	,,
1921	...	...	16.08	,,
1922	...	...	26.07	,,
1923	...	...	26.74	,,
1924	...	...	33.22	,,
1925	...	...	23.75	,,
1926	...	...	25.04	,,
1927	...	...	30.52	,,
1928	...	...	25.09	,,
1929	...	...	26.54	,,
1930	...	...	31.08	,,
1931	...	...	27.08	,,

Births.—There were 837 births registered as having taken place within the City during the year. Of these 82 were to persons non-resident in the City.

On the other hand there were 14 births elsewhere to persons resident within the City.

The corrected number of births was therefore 769, giving a Birth Rate of 15.1, compared with an average for the preceding 10 years of 17.01.

Deaths.—758 deaths were registered within the City. From these have to be deducted 82 deaths of non-residents, and to the figure added 24 deaths of City residents occurring elsewhere.

The recorded Death Rate was 13.76, compared with an average for the preceding 10 years of 12.84.

The Mean age at death was 53.7.

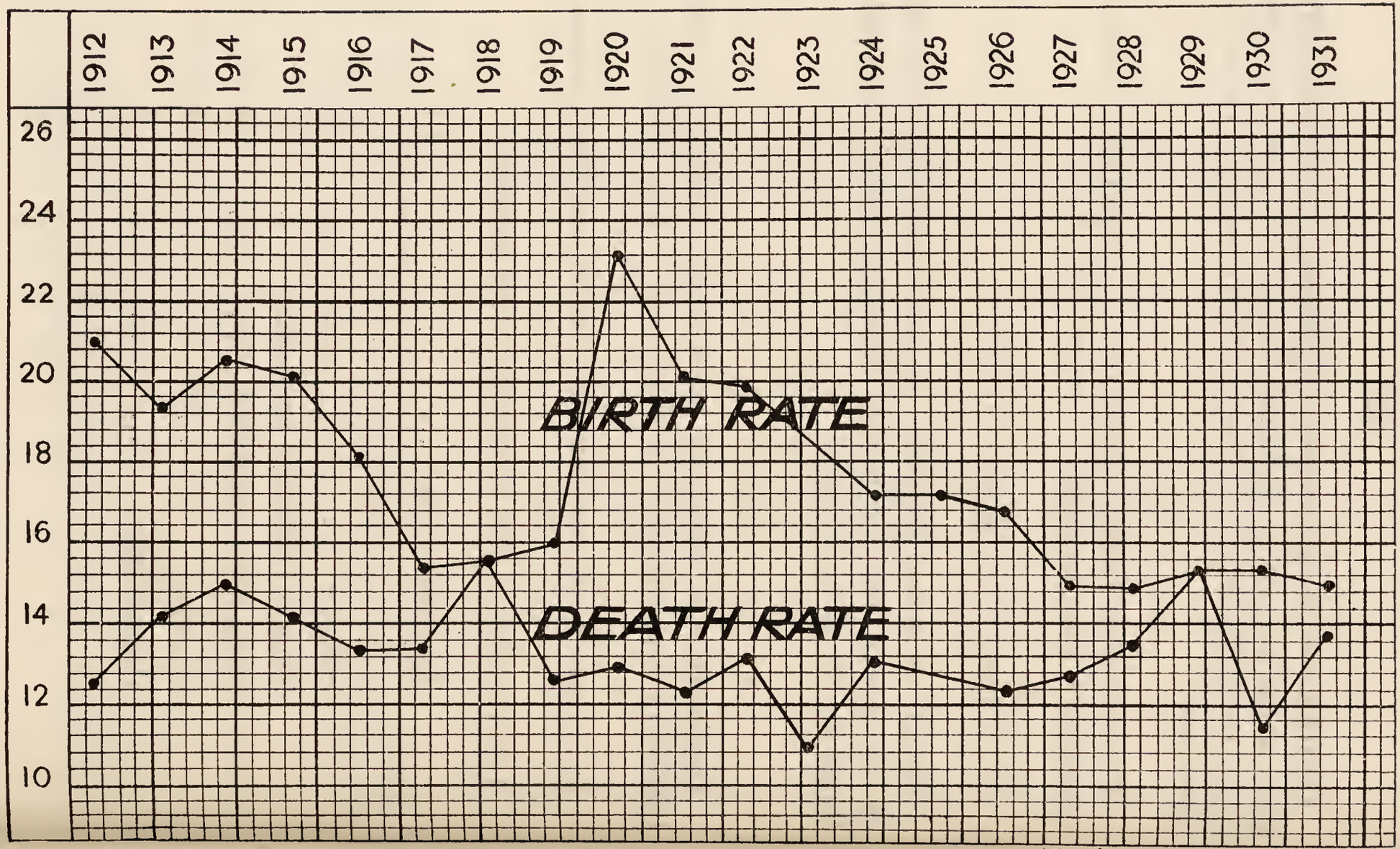
Details of causes of death, etc., are tabulated at the end of the report, and the graph illustrates Birth and Death Rates for the past 20 years.

Inquests.—42 inquests were held during the year, including inquests into the deaths of 12 non-residents.

In 3 cases death was found to be the result of disease.

The verdicts in the remaining cases were:—

Accident—road	14
other	11
Suicide	6
Deaths following operations ...	3
Asphyxia, accidental	3
Murder	1
Prematurity	1
	39


1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
26
24
22
20
18
16
14
12
10
BIRTH RATE
DEATH RATE

No causes of sickness or invalidity were specially noteworthy during the year.

Infant Mortality.—There were 49 deaths of infants under one year, giving a rate of 63.7 per 1,000 births.

30 children below 1 month of age died during the year.

The graph on page 111 compares the Infant Mortality Rate for Worcester with that of England & Wales for the past 20 years, and also indicates Worcester's *Neo-natal Death Rate* (i.e., deaths of children below one month) for the same period.

General Provision of Health Services.

Staff.—Details of Staff are to be found on Page 3.

In addition, the services of the following specialists have been secured for carrying out certain of the Council's Public Health Schemes:—

Mr. Tom Bates, F.R.C.S.—Acts as Medical Officer to the Worcestershire County & Worcester City Venereal Diseases Clinic.

Mr. Norman Duggan, F.R.C.S.—is the Surgeon responsible for the treatment at Newtown Hospital of cases of surgical tuberculosis, and Surgeon for the Orthopædic Scheme.

Nursing in the Home.—The City and County Nursing Institution has been reorganised to provide a separate nursing unit for the City.

A plan has been evolved to deal with the financial disabilities under which the institution has been labouring, and as far as is possible payment will be expected for services rendered.

Given a reasonable response from the public, there is every likelihood that the institution may be placed upon a sound financial footing.

For the Council the Institution continues to provide nursing assistance in cases of Measles, Pneumonia and Tuberculosis; and for these and certain maternity services receives a subsidy.

The following table summarises the work carried out in the City during the year ended March 1932 by the Nursing Association:—

Public Work done in 1931-32.

Visits to Old Age Pensioners	4,274
Visits to 'Notifiable' cases—24 cases	1,018
Visits to T.B. cases—19 cases	797
Visits to necessitous cases—requests by Public Assistance Committee	348
Visits to 109 children under school age (pneumonia and measles)	551
Visits to 14 Post Midwifery cases	317
Total visits ...	7,305

Poor Law Medical Out-Relief.—No changes have taken place in the medical staff or administration concerned with Medical Out-Relief.

Laboratory Facilities.—The County Analyst continues to do the bacteriological and chemical analyses required, and the following table shows the work done during the year, viz.:—

Diphtheria Swabs	939
Sputum examined for Tubercle Bacilli	324
Typhoid	14
Urine (Tubercle Bacilli)	3
Fæces (Tubercle Bacilli)	1
Ringworm	1
Cerebro Spinal Fluid	1
Drugs analysed	10
Milk analysed	90
Foodstuffs analysed	89
Fertilisers and Feeding Stuffs analysed ...	10

Milk for Bacteriological examination:—

For presence of Tubercle Bacilli	18
For Bacteria count	23

Reports on specimens submitted in connection with Venereal Diseases are supplied by the City of Birmingham Bacteriological Laboratory; and the work done in this connection during the year is summarised below:—

	From Treatment Centre.	From Medical Practitioners.	Total.
For detection of Spirochettes	15	—	15
For detection of Gonococci ...	120	25	145
For Wassermann reaction ...	145	120	265
Other examinations	45	6	51
Total	325	151	476

Local Government Act 1929.—The Council have not hastened to take any irretrievable steps by making "declarations" under the 1929 Act.

At the same time, while avoiding any formal declarations, they have through the Health Department, endeavoured to put into practise the spirit of the Act.

All cases of Tuberculosis requiring public medical treatment are dealt with under the Tuberculosis Scheme, and no case of tuberculosis is allowed to remain in the former Poor Law Infirmary if a bed can be provided in a sanatorium.

Similarly, all new mental defectives requiring institutional accommodation or guardianship are being dealt with under the Mental Deficiency Acts.

By arrangement with the Public Assistance Committee the Maternity and Child Welfare Committee (now merged in the Health Committee) arrange for the reception at the former Poor Law Infirmary of women for confinement. Since 1931, two such cases were dealt with under the Maternity and Child Welfare Scheme and not under the Poor Law.

During the year no further steps have been taken towards "Appropriation" of the former Poor Law Infirmary for Public Health purposes.

The necessity for modernising and enlarging the scope of the Poor Law Infirmary has been rendered less acute by the extension scheme for the Worcester General Infirmary.

The extension of the Worcester General Infirmary will take place in two steps:

Step 1.

Provision of:—

(*a*) A new wing to include 2 Operating Theatres, Pathological Department, Orthopædic Department.

(*b*) A new Nurses' Home.

Bed Accommodation.

This first step will provide 22 additional beds in the existing building—in the following manner:—

The Matron's quarters will be available for beds.

The old Nurses quarters will be taken over by domestic staff, which will release additional accommodation.

One Operating Theatre will be discontinued, giving a further 12 beds.

The present quarters of the night staff will become Resident Doctors quarters, which will, in turn, provide room for more beds in the main building.

Step 2.

Provision of new wards to accommodate 50 patients.

Even with an enlarged Voluntary Hospital, there still remain the indigent sick towards whom the Council have statutory obligations under the Poor Law Acts.

For the benefit of these patients and for the removal of staffing difficulties, consideration still needs to be given to the improved functioning of the Municipal Homes Hospital.

Legislation.

During 1931 the only new legislation relating to Public Health matters was

The City of Worcester (Extension) Order, 1931, which came into effect upon October 1st, 1931.

The effects immediate and remote upon the work of the Health Department are referred to under the head "Sanitary Circumstances of the Area".

Hospitals.

Worcester General Infirmary.—Work on the erection of new Nurses' Home which is included in the first part of the extension Scheme has been pushed on and the building is rapidly nearing completion.

It will provide accommodation for:—

Matron and Home Sister,

60 Resident Nurses,

4 spare bedrooms for the use of sick staff.

Each nurse will have separate accommodation and ample facilities for rest, and recreation for all grades of staff will be provided.

The designers and governing board are to be congratulated upon having given such thought and care to the happiness and comfort of the nursing staff of the Infirmary.

Worcester Ophthalmic Hospital.—The governing body of this hospital have given up the old premises in Castle Street and moved the hospital to premises at "Old Baskerville", Barbourne Road—formerly a private house.

The building has, however, been cleverly adapted to serve the needs of a modern eye hospital, one item of particular interest being the provision of central heating by oil with automatic thermostatic heat control.

The new hospital provides the following accommodation:—

14 beds for Adult In-patients.

3 Cots.

Accommodation for Matron and two resident Nurses.

City Isolation Hospital.—During the year 2 further chalets were added to the bed provision for tuberculosis cases.

A scheme for improving staff accommodation and providing better isolation facilities for cases of mixed infection or unusual infectious disease had to be postponed on grounds of economy.

Adequacy of Hospital Provision.—Isolation Hospital accommodation has so far met the needs of the City,

although further provision for cases of mixed infection or unusual infectious disease is desirable.

Throughout the first part of the year the pressure upon tuberculosis beds continued, but has been somewhat relieved by the two new chalets provided.

Our object should, however, be to reach a bed provision under which *no patient need wait a day for sanatorium treatment*.

Two additional chalets are to be erected next year.

Co-operation between the Local Authority and Voluntary Hospitals.—The block grant scheme under which the Worcester General Infirmary authorities carry out certain duties in connection with School Children, Maternity and Child Welfare and Tuberculosis cases terminated at the end of 1930.

During 1930 and 1931 negotiations were carried on with the Worcester General Infirmary Board towards reaching a new basis of agreement which should be fair alike to the Infirmary, its honorary staff and the Council. Eventually, the Block Grant was increased by 50 per cent. and a suitable form of agreement reached.

I cannot dismiss reference to this subject without reference to the courtesy and tact displayed throughout the negotiations by the Hospital Secretary.

Worcester Ophthalmic Hospital.—The arrangements under which this hospital treats ophthalmia cases continued satisfactorily during the year.

Ambulance Facilities.—Two motor ambulances under the control of the British Red Cross Society provide a service at all times of the day and night for general cases.

During the year the Society got short of funds and appealed for further assistance to the Council, at the same time initiating a contributory scheme.

The Health Committee now undertake to meet any loss on the year's working of the ambulances up to £100, and the City Treasurer has access to the Ambulance accounts.

Clinics and Treatment Centres, *Provided by the Council:*—

Maternity and Child Welfare Centre, at 54, Lowesmoor.

Medical Clinics (including ante-natal Clinics)	2 afternoons per week.
Weighing Clinics ...	2 afternoons per week.
Tuberculosis Dispensary	2 afternoons and 1 evening session weekly.
School Clinic	At Tudor House on Friday day afternoon.

Provided by the City Council in conjunction with the Worcestershire County Council.

Venereal Diseases Clinic	At the Worcester General Infirmary on Wednesday and Saturday afternoons.

Orthopædic Clinic ...	At the Worcester General Infirmary on Wednesday afternoons.
Mental Treatment Clinic	At the Worcester General Infirmary Friday afternoons.

Vaccination Acts.—No changes affecting the administration of the Vaccination Acts have taken place during the year, and the work done is summarised in the following table:—

Year ended 30th September, 1931.

	Numbers of Successful Primary Vaccinations of persons.			Number of Successful Re-vaccinations i.e. successful vaccinations of persons who had been successfully vaccinated at some previous time
	Under one year of age	One year and upwards	TOTAL	
Dr. W. G. Bennett ...	358	12	370	Nil
Dr. S. C. Legge, (Municipal Homes) ...	5	4	9	Nil
Totals ...	363	16	379	Nil

Number of Certificates of Vaccinations received during the year	545
Number of Certificates of exemption received ...	232
Number of prosecutions for failure to have child Vaccinated	1

As stated in my report for 1930, vaccination is still to be recommended as the first line of defence against Smallpox.

Maternity and Child Welfare.

The extent of the City's Maternity and Child Welfare Scheme is detailed in my 1930 report.

In November, 1931, the separate Maternity and Child Welfare Sub-Committee was merged in the Health Committee, which contains more than the statutory number of lady members.

Welfare Centre.—In consequence of the Council's steps in October, 1931, to secure economy in local government administration, the Scheme to erect a new combined Child Welfare Centre and School Clinic has been postponed; and a lease of the present child welfare centre premises at Lowesmoor has been taken for a further three years.

More suitable premises for this work are, however, long overdue, and it is hoped will not be indefinitely postponed.

The Extension of the City with the development on its outskirts of housing sites, also suggest the advantages of small branch clinics.

Provision of Milk Foods.—Consequent upon the trade depression, the demand for milk foods, free or at assisted rates, continued to be heavy.

The Health Committee, in November, 1931, slightly reduced the scale of income upon which the granting of milk, free or at part-cost, is based. Even so, the expenditure

on milk remains high, and the allowance is very generous by comparison with many other areas.

Ante-Natal Care.—Sufficient Ante-natal work cannot be done at the Welfare Centre, as the large attendances prevent the medical officer in charge giving to expectant mothers the attention they should receive; and the service falls below the standard demanded by the Ministry of Health.

Maternity Beds.—By arrangement with the Public Assistance Committee the Maternity unit of 4 beds at the Municipal Homes has been made available for the use of expectant mothers referred from the Child Welfare Centre, since February, 1931.

It is thus possible for women in poor circumstances to be admitted to the Municipal Homes Hospital for their confinement without any stigma of pauperism attaching.

Two mothers took advantage of this arrangement during the year.

Provision of Meals for Mothers.—Expectant or nursing mothers in poor circumstances can obtain dinners at the Welfare Centre on the recommendation of the Medical Officer of the Centre.

During the year, 4,240 dinners were supplied at a cost of £101 14s. 0d.

Home Helps.—Under this Scheme a mother, having her second or subsequent child, is assisted in the home at the confinement by a "Home Help" whose charge is met by the Council.

During the year, Home Helps were supplied to 132 mothers at a cost of £67.

Infant Mortality.—Analysis of the infant deaths shows that of the 49, no fewer than 30 were neo-natal deaths, i.e. deaths occurring within one month of birth.

This gives a neo-natal death rate of 39.1, as compared with 26 for 1930; and a rate amongst infants of from one to twelve months of 24.6, compared with 26 for 1930.

An analysis of these neo-natal deaths discloses that 17 were due to prematurity, and 5 to congenital defects which were bound to prove fatal.

In addition, 1 infant was murdered and 2 born precipitately (in one instance birth occurred in the street).

Conditions such as these, particularly prematurity and congenital defects, cannot be appreciably influenced by any methods at present known to Maternity and Child Welfare authorities, although improved general environmental conditions for the Mother may have some effect upon premature births.

13 children lived less than one day and 10 less than a week; and in this connection it has to be remembered that the health visitor does not gain access to the infant before the 10th day.

The influence of the health visitor and the Child Welfare Clinic is mainly concentrated upon the infant from the second month onwards, and very largely consists of advice on infant feeding.

It is satisfactory to report that no infant deaths from gastro enteritis were recorded.

Maternal Mortality.—There were 3 Maternal deaths, giving a mortality rate of 3.9 per 1,000 live births, as compared with the rate for England and Wales for 1930 of 4.11.

Case 1. *Woman aged* 34. *First Child.*

This was a private case in the charge of two of the most capable and experienced practitioners in the City. There was adequate ante-natal care. Difficulty was expected and during the case an obstetric specialist was called in on two occasions. The patient never rallied after Cæsarean Section.

Case 2. *Woman aged* 29. *First Child.*

This woman booked a bed at the Nursing Institution but cancelled it a few days later, as she could not afford the fee owing to her husband's illness. She had no ante-natal care and did not book a midwife, only sending for the district midwife when labour started.

When difficulties arose a doctor, who had never had a previous opportunity of seeing the patient, was called in. After a difficult birth, resulting in a still-born child, the patient was admitted to the General Infirmary where she died of Puerperal Sepsis.

The patient did not avail herself of any of the facilities open to her and sought no assistance until labour had started. Her attendance at the Ante-Natal Clinic might have prevented the fatal termination.

Case 3. *Woman aged* 35. *Second Child.*

In this case death occurred from hæmorrhage arising as a result of a developmental abnormality in the course of pregnancy.

The patient had received ante-natal medical care.

Voluntary Insurance Scheme.—The following table shows the working of the Scheme during 1931, viz:—

Total Live Births	823
Total Medical Help Calls	212
Percentage of Calls	24.8
Total No. of Claims from Doctors	190
Total Cost of Claims	£280
Number of INSURED persons who paid 3/6d. Insurance fee	346
Amounting to	£61
Number of INSURED persons who received Medical Aid	137
Amounting to	£221
Percentage of Fees paid in relation to Claims	27.5
Number of UNINSURED persons who received Medical Aid	53
Costing	£59
Amount recovered from Mothers out of above	£12
Percentage of Doctors' Fees recovered ..	20.3

Puerperal Fever and Puerperal Pyrexia Regulations.

3 cases of Puerperal Fever were notified, all of whom made good recovery. 1 death from Puerperal Fever occurred in a case not previously notified.

12 cases of Puerperal Pyrexia were notified, of which 5 were treated at the Worcester General Infirmary.

Puerperal Pyrexia is defined as "any febrile condition, other than Puerperal Fever, occurring in a woman within 21 days after child-birth or miscarriage in which a temperature of 100.4 Fahrenheit or more has been sustained during a period of 24 hours, or has recurred during that period."

The ultimate diagnosis of the notified cases of Puerperal Pyrexia were as follows:—

Influenza	3
Pleurisy	1
Rheumatism	1
Mastitis	1
Parametritis	1
Pneumonia	1
Chill	1
Endometritis	2
No ascertained cause	1

Midwives Acts, 1902 and 1918.—During the year 15 Midwives notified their intention to practice within the City and conducted 701 cases alone or with doctors.

The following notices were received from midwives in connection with their practises:—

1. Stillbirths 27
2. Artificial Feeding 1
3. Notification of death 3
4. Liability to be source of infection 5

Medical Aid Forms sent in during the year numbered 220; the causes for sending for medical help being tabulated as follows:—

For the Mother		For the Child	
During Pregnancy:			
Albuminuria	3	Prematurity	6
Hæmorrhage ..	4	Inflammation of Eyes	3
Illness of Mother ..	1	Discharging Eyes ..	9
		Stillbirth	1
		Jaundice	4
During labour or the lying in:—		Infantile Debility ..	3
		Asphyxia	2
Ruptured Perineum	58	Difficult breathing ..	1
Rigid Perineum ..	13	Unsatisfactory condition	3
Difficult Labour ..	35	Convulsion	1
Rise of Temperature	13	Injury to Limbs ..	1
Thrombosis	1	Spina Bifida	1
Illness of Mother ..	11	Malformation ..	2
Uterine Inertia ..	9	Ophthalmia Neonatorum ..	9
Post-partum Hæmorrhage ..	5		
Vagina laceration ..	2		
Fœtal Distress ..	1		
Albuminuria	5		
Abdominal Tumour	1		

Impacted Breech ..	1	
Anæmia	1	
Emergency Confinement	1	
Rash	1	
Adherent Placenta ..	2	
Breech Presentation	2	
Breasts inflamed ..	1	
Abortion miscarriage	1	
Prolapsed Cord ..	1	
Collapse	1	
	174	46

The following table gives comparative statistics regarding requests for medical aid during the years 1927 to 1931, in relation to the Voluntary Insurance Scheme adopted in 1928, viz:—

STATISTICS RELATING TO THE WORKING OF THE VOLUNTARY INSURANCE SCHEME IN CONNECTION WITH THE PROVISION OF A DOCTOR AT CHILDBIRTH.

	Year ended 31st December				
	1927	1928	1929	1930	1931
Total Live Births ...	761	784	785	808	823
Total Medical Help Calls	74	136	197	199	212
Percentage of Calls ...	9.7%	17.3%	25.1%	23.4%	24.8%
Maternal Mortality per 1000 Live Births ...	2.62%	Nil.	3.82%	2.47%	3.64%

Year ended 31st Dec.	INSURED			NON-INSURED		
	Claims Paid	Insurance Fees paid	Percentage	Claims Paid	Fees recovered	Percentage
	£	£		£	£	
1927	—	—	—	108	24	22.2%
1928	107	44	41.1%	64	10	16.1%
1929	200	53	26.5%	66	11	16.7%
1930	213	56	26.3%	73	17	23.3%
1931	221	61	27.5%	59	12	20.3%

During December, three cases of Pemphigus Neonatorum occurred in connection with the practice of a certain midwife who herself gave notice of her contact with this infection.

This same midwife had previously had cases occurring in her practice when living within the County Area.

She was suspended for 14 days, and carried out personal disinfection. Her clothes, bedding and house were fumigated, and on the advice of the Medical Officer of Health she received dental treatment.

No further cases followed her resumption of practice.

Registration of Nursing Homes.—A new nursing home—St. Stephen's, Droitwich Road—was added to the list of Registered Nursing homes, of which there are now four in the City.

In one instance only was it necessary to draw attention to a breach of the conditions of the licence granted to a home, and the necessary requirements were complied with.

Children's Act, 1908, Section 1.—Since April, 1930, the work under this Section has been carried out by the Health Committee, whose Health Visitors are all authorised to act as Infant Protection Visitors in their respective areas.

Each foster-mother must notify, under penalty, the reception, transfer or death of a boarded-out child, and each is supplied with a leaflet setting out her duties under the Act.

219 visits were paid by the Health Visitors to boarded-out children.

Details of boarded-out children are tabulated below:—

Number on Register, 31st December, 1930	31	
Number of children received by Foster-mothers during year 1931	11	
	—	42
Number of children removed from care of Foster-mothers	6	
Children removed from Registers having attained the age of 7 years	—	
Died	—	6
		—
Number on Register 31st December, 1931		36
		—

Special attention is paid by Health Visitors to these boarded-out children who lack the care of their own mothers; and the transfer to Health Committees by the Local Government Act of 1929 of the supervision of these children represents an advantageous step in that unification of public medical services that the Act envisaged.

Maternity and Child Welfare Statistics, 1931.

TABLE I.

Visits paid to the Homes by the Health Visitors.

A.	First	Return	Total	Total 1930
To Infants under 1 year	704	6,603	7,307	6,304
To Children 1-5 years	—	—	7,271	7,420
To Expectant Mothers	358	542	900	593
To Mothers after confinement ...	—	—	34	38
Total	1,062	7,145	15,512	14,355

B.	Total Visits	Total 1930
To cases of Ophthalmia Neonatorum	51	35
,, ,, ,, Puerperal Fever and Pyrexia	10	27
,, ,, ,, Measles and German Measles	23	205
,, ,, ,, Whooping Cough	130	92
,, ,, ,, Epidemic Diarrhœa ...	64	65
,, ,, ,, Poliomyelitis	—	2
Total	278	426

C.	Total Visits	Total 1930
In connection with:—		
Infant Deaths	31	39
Still Births	83	40
Midwifery Fees	49	46
Dental Cases	25	19
Other Cases	1,946	2,607
Total	2,134	2,751

D.	Total Visits	Total 1930
Total Visits paid on District:—		
Group A	15,512	14,355
,, B.	278	426
,, C.	2,134	2,751
Total	17,924	17,532

TABLE II

Clinics held by the Medical Officer.

	Total 1931	Total 1930
1. Number of Meetings	86	86
2. Attendances:—		
Infants under 1 year		
First Visits	408	
Return Visits	538	
Total	946	885
Children 1-5 years		
First Visits	28	
Return Visits	346	
Total	374	524
Ante-Natal Women		
First Visits	195	
Return Visits	60	
Total	255	249

Post-Natal Women		
First Visits	5	
Return Visits	304	
Total	309	300
Special Women		
First Visits	13	
Return Visits	101	
Total	114	162

3. Total Attendances:—

Children	1,320	
Women	678	
Total	1,998	2,084

4. Average Attendance per Clinic:—

Children	15.3	
Women	7.8	
Total	23.1	24.3

TABLE III

Weighing Clinics

	South	North	West	Central	Total	Total 1930
1. Number of Meetings ..	48	48	48	48	192	185
2. Total Visits						
Infants under 1 year	605	1,022	731	1,599	3,957	4,029
Children 1-5 years ..	80	178	114	290	662	539
Total Children ..	685	1,200	845	1,889	4,619	4,568
Expectant Mothers	9	140	68	119	336	251
Other Women ..	194	293	220	284	991	808
Total Women ..	203	433	288	403	1,327	1,059
3. Total Attendances ..	888	1,633	1,133	2,292	5,946	5,627
4. Average Attendance per Session						
Children	14.2	25.0	17.6	39.3	24.0	24.6
Women	4.2	9.0	6.0	8.3	6.8	5.7
Total	18.4	34.0	23.6	47.6	30.8	30.3
5. First Visits						
Infants	93	102	96	181	472	479
Children	8	10	5	4	27	11
Expectant Mothers	9	74	31	34	148	81
Total	110	186	132	219	647	571

Infirmary Treatment.—84 Children and 6 women were sent for treatment, for conditions given below:—

Orthopædic Cases	11
Hernia	6
Skins	7
Otorrhea	8
Tonsils and Adenoids	2
Phimosis	24
Nævi	6
Tongue tie	5
Malnutrition	3
Eyes	8
Congenital malformations	3
Septic wound	1
Conditions associated with pregnancy ..	6

Dinners.—At a cost of:

	Total 1931		Total 1930	
	Dinners	Cost	Dinners	Cost
	4,240	£101 14 0	4,893	£110 14 9
Home Helps	32	£67 0 0	129	£64 5 0

Dental Clinic:—	Total 1931		Total 1930	
	Women	Children	Women	Children
Patients	41	22	35	24
Visits	98	33	114	30
Extractions ..	453	74	354	55
General Anæsthetics ..	23	4	19	1
Local do. ..	5	16	—	—
Dentures	3	—	12	—
Dressings ..	—	18	—	37

Notifications of Births and Still Births, 1931.—Of the 823 Live Births and 31 Still Births notified to us:—

Midwives notified ..	665	Live and	27	Still Births	
Doctors notified	10	,, ,,	0	,, ,,	
Maternity Nurses notified	19	,, ,,	0	,, ,,	
Parents notified	2	,, ,,	0	,, ,,	
General Infirmary notified	10	,, ,,	2	,, ,,	
Master of Workhouse ,,	13	,, ,,	1	,, ,,	
Maternity Hospital ,,	92	,, ,,	0	,, ,,	
South Bank Nursing Home notified	3	,, ,,	0	,, ,,	
St. Asaph's Maternity Hospital notified ..	5	,, ,,	1	,, ,,	
St. Stephen's Nursing Home notified ..	3	,, ,,	0	,, ,,	
St. Chad's, Birmingham notified	1	,, ,,	0	,, ,,	

Midwifery Claims, 1931:—

	Midwifes	Doctors	Total
Number of Claims	26	187	213
Amount of Claims	£25/6/6	£280/9/0	£305/15/6
Excused all payment	15	25	40
Midwives' claim disallowed ..	4	—	4
Paid Insurance Scheme Fee ..	—	150	150
To repay in full ..	—	9	9
Amount to be recovered in full payments ..	—	£11/8/0	£11/8/0
To repay in part payments ..	1	2	3
Amount to be recovered in part payments ..	10/6	14/-	£1/4/6

Claims from 1 doctor and 5 midwives were received too late for investigation before the end of the year.

A total sum of £12/12/6 to be recovered from 12 persons, and of this:—

	£	s.	d.
4 completed payments to the amount of ..	4	5	6
4 have made part payments to the amount of	2	4	6
4 were handed over owing to the amount of ..	3	11	6
4 still owe sums to the amount of	2	11	0
	£12	12	6

Of the 3 persons still owing from 1929, add the 10 outstanding cases from 1930, making in all:—

13 persons owing £13/2/9.

Of these:—

	£	s.	d.
2 completed payments to the amount of ..		15	0
2 have paid		7	0
11 were handed over owing sums amounting to	12	0	9
	£13	2	9

Sanitary Circumstances of the Area.

Water.—The City water supply is drawn from the River Severn; it is purified by downward filtration through filter beds and finally chlorinated before distribution, free chlorine being used in the proportion of 1 part in 2 millions of water.

The City Engineer kindly informs me that the approximate consumption for the year was 688,705,000 gallons, giving a consumption per head per day of 34.306 gallons.

Throughout the year the supply has been satisfactory in quality and quantity.

Bacteriological examination is carried out weekly; in no case was B.Coli detected in 100 c.c., and the average number of organisms was 1.96 only.

The following analysis of a water sample taken on 15th July, 1931, indicates the characteristics of the water supply:—

CERTIFICATE OF ANALYSIS

July 15th, 1931

WATER FROM PURE WATER TANK

	Grains per gallon	Parts per 100,000
Solids in suspension	None	
Solids in solution dried at 100°c.	27.3	39.0
,, ,, appearance ..	White	
,, ,, after Ignition	22.4	32.0
Behaviour of solids on Ignition	Browning	
Phosphates	None	
Chlorine calculated as Common Salt	9.4	13.4
Free and saline Ammonia ..	0.0001	0.002
Albuminoid Ammonia	0.004	0.0061
Oxygen absorbed in 4 hours ..	0.07	0.1
Nitrogen in Nitrates	Trace	

Colour			Sl. yellow
Deposit			None
Smell			None
Hardness	Permanent	5.8°	..
	Temporary	6.0	..
	Total	11.8°	..
Poisonous Metals. None.			

Remarks:—I am of opinion that the above sample of water may be used for drinking purposes.

(*Sd.*) C. C. DUNCAN,
County Bacteriologist.

Rivers and Streams.—During the month of October considerable nuisance was caused in the Bath Road area by sewage pollution of a stream running behind houses in Timberdine Avenue.

The Chief Sanitary Inspector's knowledge of the building sites of the City enabled him, after considerable investigation, to suggest the probable cause of the nuisance.

Following the rectification of a faulty sewer connection, the nuisance was abated.

Drainage and Sewerage.—During April, 1931, the sewers were charged with a large amount of gas liquor from the Worcester Gas Company Works. The gas penetrated houses in the Rainbow Hill district and caused no little nuisance to the residents.

The nuisance was caused by the injudicious emptying of the water from a gasometer—an event not likely to be repeated for 50 years.

On the representation of the Health Department, steps were taken to effect the slow release of the gas liquor into the Sewer and the nuisance abated.

On June 14th, owing to extensive rainfall, the main sewer running parallel with the river became overcharged and burst. For some time, owing to the river being in flood, it was not possible to repair the breach, and the sewage was diverted directly into the river. The breach occurred one and one-third miles below the water supply intake. Bacteriological reports of the water supply showed it to be quite satisfactory during the period of river pollution.

During the year no important alterations in sewerage collection or disposal have taken place. Prior to the extension of the City in October, the City could be described as a "water-closet" town: for, with a few exceptions in areas too low lying to give a fall to a sewer, the town's sewage was dealt with on the water-carriage system. Actually, there were only 5 Privies (affecting 9 houses); 10 Pail-closets; and 25 Cess Pits then existing.

City Extension.—The enlargement of the City in October, 1931, brought in its train sanitary responsibilities out of all proportion to the area and population annexed.

Immediately, a sanitary survey was set on foot and the results of the survey are summarised in the table below, viz.:—

CITY OF WORCESTER BOUNDARY EXTENSION

Summary of Sanitary Circumstances . . . October, 1931

	Old Northwick Northwick Road Becketts Lane	Cornmeadow	Whinfield Road	Ombersley Road	Blackpole and Bilford Road	Specthley	Whittington	Wylds Lane	Bath Road	Lower Wick	Dynes Green Martley Road	Bransford Road Bromyard Road	Total
Number of Houses	78	49	20	39	19	42	20	1	57	46	15	12	398
Sanitary Accommodation													
W.C.	66	10	20	37	4	17	19	—	52	26v	—	5	256
Pail	5	31	—	3	5	22	—	1	4	21	11	6	109
Privy	7	6	—	—	9	2	1	—	1	2	4	3	35
Sewage Disposal													
To Sewer ...	60A	10	—	7	1	—	16x	—	4	5	—	1	104
To Cess Pit ...	4	—	—	28	1	3	—	—	12	12	—	1	61
To Septic Tank	2	—	20	2	1	13	3	—	36	9	—	3	89
Water Supply													
City	65	10	—	36	3	39	19	1	56	15	—	3	247
Well	6	23	4	2	12	3	1	—	—	24	9	7	91
													91 Wells to 151 Houses

v 3 Houses have Pails in addition to W. C.
A 6 Houses drain to Northwick Sewage Works.
x 16 Houses drain to Whittington Sewage Works.

Note—Where there are apparent discrepancies in the Totals, this is due to 2 houses sharing 1 W.C., or to a house having W. C. and pail closet.

It will be seen that many houses had no piped water supplies; some being served by shallow wells, which in some cases have proved on examination to be yielding a water unfit for drinking purposes.

Some houses proved to be furnished with pail-closets, emptied when necessary upon adjoining land; others with cesspools or inferior septic tank systems which, laid down in claysoils, have soon given rise to nuisance particularly in wet weather.

The sanitary conditions of the added area have been the subject of a special report to the Health Committee; and in consequence, certain recommendations made to the Water and Sewerage Committee and the Streets Committee are being carried out. These will be more appropriately detailed in my 1932 report.

Scavenging.—The adoption of the system of Controlled Tipping, referred to in my 1930 report, has obviated the nuisance that previously existed at the City Tips—particularly at Henwick Road and Diglis. Residents in the vicinity of the tips speak with appreciation of the improved conditions.

During the year, tipping was carried out at Claines in addition to the tips referred to.

Schools.—It was not necessary during the year to secure the closure of any schools on account of insanitary conditions or infectious disease.

Steps are being taken to relieve overcrowding in St. Stephen's School, where, during 1930, there was a high incidence of Scarlet Fever.

Sanitary Inspection of the Area.

Mr. Ralph Taylor, Chief Sanitary Inspector, furnishes the following report dealing with sanitary inspection within the City:—

Sanitary Inspection of the District.

Abatement of Nuisances.—A statement of the sanitary operations is given below, 2,029 nuisances having been reported during the year.

To abate these Nuisances, 392 Request Notices were served upon the persons responsible, and in 148 instances the Health Committee gave instructions for Statutory Notices to be served.

In 7 cases I had to ask for legal proceedings to be taken, but in only one case was it found necessary to serve a Summons, as the nuisances were abated after the despatch of a threatening letter.

In the case referred to, the Owner was summoned before the Magistrates for failing to comply with a Statutory Notice to carry out certain repairs to property. The Magistrates made an Order for the work to be done within a month, the Defendant to pay Costs.

Number of Notices Served and Summary of Work Carried Out During 1931.

Number of Notices (Preliminary) served	392
Number of Notices (Statutory) served	148
Number of Letters sent with regard to Notices, &c.	576
Number of Complaints received and investigated	356
Number of Notices sent to Schools re Infectious Diseases	844

Rooms cleansed and limewashed	397
Dilapidated walls, floors, windows, &c. repaired ..	308
Defective roofs and spouting repaired	151
Damp walls cured	53
Wash-houses repaired, cleansed and limewashed ..	70
Wash-house floors and yards repaved or repaired	16
Glazed stoneware sinks fixed	10
Sink waste-pipes and rainwater pipes disconnected from drain	18
Drains opened and cleansed	54
Defective drains repaired or reconstructed ..	50
Glazed stoneware gulley traps fixed	22
Water closets repaired, cleansed and limewashed ..	77
Water closet flushing cisterns repaired	35
Water closets provided with new basins and traps	23
Defective joints in pans, traps and flush pipes repaired	9
Houses provided with sufficient water supply ..	15
Nuisances from overcrowding abated	17
Nuisances from improper keeping of animals ..	9
Accumulation of manure removed	6
Sanitary dust-bins provided	476
Miscellaneous	213
Waste of water reported to Water Inspector ..	5
No. of references to City Surveyor with regard to dangerous buildings, paving of courts and foul street gullies	7
Rooms disinfected after infectious diseases ..	331
Samples of Food and Drugs collected for City Analyst	189
Samples of Fertilisers and Feeding Stuffs collected for City Analyst	10
Samples of Milk for Bacteria Count	23
Samples of Milk for Tubercle Bacilli	18

Inspections.—This table shews the number and nature of inspections carried out during 1931:—

Housing Inspections	425
Public Health Inspections	1,438
Re-Inspections	1,695
Infectious Diseases, Visits to Houses	172
Common Lodging Houses	158
Houses Let in Lodgings	154
Dairies, Cowsheds and Milkshops	180
Offensive Trades	102
Workshops	123
Bakehouses	101
Slaughterhouses	1,854
Canal Boats	30
Dust-bin Inspections	325
Food Shops and Markets	635
Places where Animals kept	44
Water Samples taken	78
Drains smoke-tested	30
Smoke Observations	32

Housing.

1. Inspection of Dwelling-houses during the Year:—

(1)	(*a*)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) ..	1,763
	(*b*)	Number of inspections made for the purpose	2,809

(2) (*b*) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 425

(*b*) Number of inspections made for the purpose 445

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .. 28

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 29

2. *Remedy of Defects during the Year without Service of Formal Notices*:—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers 196

3. *Action under Statutory Powers during the Year*:—

A. Proceedings under sections 17, 18 and 23 of the Housing Act, 1930:

(1) Number of dwelling-houses in respect of which notices were served requiring repairs 5

(2) Number of dwelling-houses which were rendered fit after service of formal notices:

(*a*) By owners 5

(*b*) By local authority in default of owners Nil.

B. Proceedings under Public Health Acts:

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 87

(2) Number of dwelling-houses in which defects were remedied after service of formal notices:

(*a*) By owners 75
(*b*) By local authority in default of owners Nil

C. *Proceedings under Sections* 19 & 21 *of the Housing Act*, 1930:—

(1) Number of dwelling-houses in respect of which Demolition Orders were made 18

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders 14

D. *Proceedings under Section* 20 *of the Housing Act*, 1930:—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made Nil

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit Nil

E. *Proceedings under Section* 3 *of the Housing Act*, 1925:—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs Nil

(2) Number of dwelling-houses which were rendered fit after service of formal notices:

(*a*) By owners Nil
(*b*) By local authority in default of owners Nil

(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close .. Nil

F. *Proceedings under Sections* 11, 14 & 15 *of the Housing Act*, 1925:—

(1) Number of dwelling-houses in respect of which Closing Orders were made .. Nil

(2) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit Nil

(3) Number of dwelling-houses in respect of which Demolition Orders were made Nil

(4) Number of dwelling-houses demolished in pursuance of Demolition Orders Nil

House Refuse.—During the year, 476 ash-bins have been provided. The practice of sending an Order Form with each notice served stating that ash-bins can be supplied by this Department, has greatly facilitated our work, and in no case have proceedings been instituted for non-compliance with notices served.

Smoke Abatement.—32 observations were made of factory chimneys for the emission of smoke.

4 cautionary letters were sent to the respective owners during the year, and subsequent observations shewed that stricter attention was being given to the firing of the furnaces.

Rag Flock Act, 1911-1928.—Inquiries have been made, and there are no premises in the City where rag flock is manufactured. The only flock used in bedding is cotton mill, puff or flock not broken from rags but made from waste cotton.

Premises Controlled by Bye-Laws.

Offensive Trades.—The total number of Offensive Trades as defined by the Ministry of Health Order of January 1913 and Section 112 of the Public Health Act 1875 is 52, as follows:—

37	Fish-friers
5	Tripe-boilers
3	Fellmongers
4	Rag & Bone Dealers
2	Hide and Skin and Fat Dealers
1	Gut Scraper
52	

5 applications for the establishment of the trade of a Fish-frier were received during the year, with the following results, viz.:—

3 were refused.

2 were licensed to the 31st December 1931.

In addition, temporary permissions were granted to two applicants to carry on the trade of a Fish-frier during the Hop-picking season.

A Knacker Yard at Croft Road is licensed annually for slaughtering horses and cattle not intended for the food of man, subject to strict rules and regulations as to the conduct of the trade.

The Offensive Trades have, on the whole, been well conducted and no complaints of nuisance have been reported.

Common Lodging Houses.—There has been no change during the year in the number or conduct of the 10 Common Lodging Houses on our Register, which provide accommodation for 215 lodgers.

Two of these houses are permanently registered, and the other eight are registered for a period of one year only under Section 69 of the Public Health Amendment Act, 1907.

The Common Lodging Houses have, on the whole, been well conducted, and visits have been made at least once a fortnight.

Houses Let in Lodgings.—There are now 12 houses on our Register as "Houses Let in Lodgings", one having given up during the year.

Since the new Byelaws were introduced, the Houses Let in Lodgings have been well conducted and no serious nuisance reported.

Factory & Workshops Act.—The number of Workshops on our Register at the end of 1931 was 127, made up as follows:—

Number on Register at the end of 1930	..	138
Add—Workshop added during 1931 ..	..	1
		139
Less—		
Workshops given up during 1931	9	
Workshops converted into Factories ..	3	
	.	12
No. of Workshops on Register at 31st December, 1931		127

Verbal or Requests to Occupiers or Owners with regard to limewashing, fixing Abstract, etc., have been complied with; but notices have had to be served during the year in connection with the following defects:—

Sanitary Conveniences screened off to ensure privacy	2
Sanitary Conveniences cleansed	2
Provision of suitable W.C., complete with flushing cistern, water supply, etc.	1

These defects were remedied without the necessity of further proceedings.

3 Notices of infringement of the Public Health Acts were received from H.M. Inspector of Factories, and were immediately dealt with.

Bakehouses.—At the close of the year 1931, there were 46 Bakehouses remaining on our Register. This includes 10 which are classified as "Factory Bakehouses". One "Factory Bakehouse" has been closed during the year, and one Bakehouse which was closed in 1930 has now been re-opened.

There have been one or two changes of occupiers in connection with the bakehouses.

No proceedings have been necessary with regard to verbal or Request Notices to carry out limewashing and minor repairs to the bakehouses.

INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	In-spections. (2)	Written Notices. (3)	Pro-secutions. (4)
FACTORIES (Including Factory Laundries)	21	3	—
WORKSHOPS (Including Workshop Laundries)	123	2	—
WORKPLACES (Other than Outworkers' pre-mises)	—	—	—
Total	144	5	—

Defects found in Factories, Workshops and Workplaces.

Particulars. (1)	Number of Defects. Found. (2)	Re-medied. (3)	Referred to H.M. Inspector. (4)	Number of Prosecutions (5)
Nuisances under the Public Health Acts:—*				
Want of cleanliness	2	2	—	—
Want of ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of drainage of floors ...	—	—	—	—
Other nuisances	1	1	—	—
Sanitary accommodation — insufficient ...	1	1	—	—
Sanitary accommodation — unsuitable or defective ...	4	4	—	—
Sanitary accommodation — not separate for sexes ...	—	—	—	—
Offences under the Factory and Workshop Acts:				
Illegal occupation of underground bakehouse (s. 101)	—	—	—	—
Other offences (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921) ...	—	—	—	—
Total ...	8	8	—	—

*Including those specified in Sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.

Nature of Work (1)	Instances (2)	Notices served (3)	Prosecutions (4)
Wearing Apparel—			
Making, &c.	3	3	—
Cleaning and washing			
Household linen			
Lace, lace curtains and nets			
Curtains and furniture hangings ...			
Furniture and upholstery			
Electro-plate			
File making			
Brass and brass articles			
Fur pulling			
Cables and chains			
Anchors and Grapnels			
Cart gear			
Locks, latches and keys			
Umbrellas, &c.			
Artificial flowers			
Nets, other than wire nets			
Tents			
Sacks			
Racquet and tennis balls			
Paper, &c., paper bags			
Brush making			
Pea picking			
Feather sorting			
Carding, &c., of button, &c.			
Stuffed toys			
Basket making			
Chocolates and sweetmeats ...			
Cosaques, Christmas crackers, Christmas stockings, &c. ...			
Textile weaving			
Total	3	3	—

Housing Conditions.

The extent of work done under this head is summarised in the table on page 48.

Many unfit houses remain to be demolished and considerable overcrowding to be abated in carrying out the Council's policy under the Housing Act, 1930. The five-year building programme decided upon in 1930 will meet the following needs so far as overcrowded cases and unfit houses are concerned:—

1.			
	(*a*) Number of occupied houses against which Closing Orders are in force	58	
	(*b*) Number of persons who would be displaced by demolition of these houses		293
2.			
	(*a*) Number of unfit houses capable of representation	203	
	(*b*) Number of persons who would be displaced by demolition of these houses		846
3.			
	Total number of displaced persons who would need to be provided for as a result of action taken under the Housing Act, 1930		1139
4.			
	Approximate number of houses required for these displaced persons	300	

5.	These figures relate to conditions as NOW existing. During the 5 year period referred to in Section 25 of the Act, additional unfit houses would be found capable of representation. This additional figure is estimated at an outside figure of	100
	Total Houses required	400

Unhealthy Areas.—The plan for clearing the Dolday area is now well forward and the first of the displaced tenants should be moved to new houses by Autumn, 1932.

Wellington Street Area.—Owing to certain technical difficulties encountered in acquiring this property, it was decided not to proceed to clear this small area under the Housing Act, 1930. The properties in question are in process of being acquired by the Education Authority.

During the year the Health Department has received considerable assistance from the Housing Committee in regard to the provision of new houses in cases of overcrowding or for tubercular Patients recommcnded to them by the Mediaal Staff.

At the same time one feels that too much attention can be paid to the tenants' ability or inability to meet the rent of a Council House; and it is perhaps to be regretted that the selection of tenants does not devolve upon the Health Committee, whose sanitary Officers are conversant with housing conditions within the city.

Even in times of Economy it is not always desirable that financial considerations should dominate policy, particularly in matters of Public Health.

Inspection and Supervision of Food.

Milk Supply.—"Clean milk" propaganda carried out by the staff of the department would seem to have stimulated the interest of milk retailers in the sale of designated milks.

During the year the following Licences were issued under the Milk (Special Designations) Order, viz.:—

Number of Producers' Licences granted for the sale of Pasteurised Milk	2
Number of "Dealer's" Licences granted for the sale of Grade "A" (Tuberculin-tested) Milk ..	1

Messrs. Bennett's Dairies instituted a Pasteurising station capable of dealing with 100 gallons of milk per hour, and were followed by the Worcester Co-operative Society, who opened a similar station to deal with 400 gallons per hour. In both instances the new venture received the support of the Health Department.

In consequence of their adoption of clean milk methods of retailing, the producers of pasteurised milk report considerable increases in trade.

Milk handling and distribution can best be carried out by large firms with up-to-date equipment and premises. The small retailer, competing with inferior equipment, will probably go to the wall in time, but in many instances his loss will be the public's gain.

The Chief Sanitary Inspector, Mr. Ralph Taylor, upon whom devolves the routine work in connection with the Food & Drugs Acts, supervision of milkshops, enforcement of Meat Regulations, etc., submits the following details:

Milk.—Out of a total number of 90 samples of milk purchased during the year, 10 were certified by the Analyst to below the presumptive standard of the Ministry of Agriculture.

Sample No.	*Where taken.*	*Result of Analysis.*
No. 63	Purchased on Round	13.3% deficient in fat.
No. 1	Taken in course of delivery to Dairyman	10% deficient in fat.
No. 3	Taken direct from Cows by County Police ..	3.3% deficient in fat.

The Vendor of the original sample No. 63 appeared before the Health Committee, and after consideration the Committee decided not to prosecute. The Dairyman was warned.

Sample	*Where taken.*	*Result of Analysis.*
No. 64	Purchased on round	23.3% deficient in fat.
No. 76	Purchased on round	13.3% deficient in fat.
No. 89	Purchased on round	3.5% deficient in fat.

Samples of milk were taken later in course of delivery from the respective farmers concerned, which all proved, on analysis, to be up to Standard.

The Vendors appeared before the Health Committee and were strongly warned, and all Dairymen in the City were circularised that absence of the use of a plunger would not in future be accounted an excuse for deficiency in the quality of milk.

Sample	*Where taken.*	*Result of Analysis.*
No. 80	Purchased on round	16.6% deficient in fat. 18.8% deficient in Non-fatty Solids.
No. 87	Taken from farmer in course of delivery	6.6% deficient in fat. 15.2% deficient in Non-fatty Solids.
No. 1	Taken direct from Cows	5.8% deficient in Non-fatty Solids.
No. 2	Ditto ditto ..	10% deficient in fat. 5.8% deficient in Non-fatty Solids.
No. 3	Ditto ditto ..	Up to Standard (3.5% Fat, 8.6% N.F.S.).

The Vendor and Farmer concerned were prosecuted. The Magistrates fined the Dairyman £2 and £1 11s. 6d. Costs, and the Farmer £10 and £2 12s. 6d. Costs.

The facts in connection with this case were interesting, as two Police Officers went to the farm and were present at the milking, and when the milking had finished they took samples Nos. 1 & 2, which proved to be deficient in Fat and Non-fatty Solids.

The Chief Sanitary Inspector, not being satisfied that the samples were of milk *as direct from the cows*, arranged to accompany the two Police Officers and obtain fresh samples: he did so, with the result that the samples taken at that milking were genuine.

At the first milking, the Police Officers had not superintended the whole of the milking operations, as the churn in the Dairy was left unattended. Another significant fact was that at the second milking, when the whole of the milking operations were under observation, only 9 gallons of milk was produced, as compared with $10\frac{1}{2}$ gallons when the samples were taken for the first time.

A Test and a Formal sample of "Certified" milk taken during the year were certified by the Analyst to be slightly deficient in Fat. Samples taken at place of delivery and direct from the cows were also deficient in fat.

Our procedure in all cases of milk being reported against as below the standard laid down by the Ministry of Agriculture (*i.e.*, Fat 3.0% and Non-Fatty Solids 8.5%) is to trace the source of supply:—

(*a*) Purchase on round.
(*b*) Samples taken in course of delivery from the farmer to the dairyman.
(*c*) Samples, if necessary, direct from the cows.
(*d*) Vendor asked for an explanation and to attend Meeting of Health Committee.

The County Authorities have, at all times, given every assistance when asked to take samples of milk within their own district.

The average composition of the 90 milk samples taken during the year compares as follows with the two previous years, viz.:—

	1929	1930	1931
Fat	3.70%	3.74%	3.70%
Non-fatty Solids ..	8.60%	8.78%	8.76%

The figures for 1931 are satisfactory when it is considered that 11 samples of milk were below the standard of the Ministry of Agriculture.

Bacteriological Examination.—41 samples of Milk were, during the year, sent to the City Analyst for bacteriological examination—23 for Bacteria Count, and 18 for the presence of Tubercle Bacilli.

The 18 latter samples were all found to be free from Tuberculosis.

The following are the results of the 23 samples of milk taken for Bacteria count:—

Pasteurised Milk:

	On Agar at 37° C. in 2 days per 1 c.c.
(1)	47,526
(2)	1,186
(3)	473,000
(4)	10,386
(5)	6,233
(6)	3,960
(7)	11,140
(8)	14,200
(9)	5,943

All the above samples with one exception gave a bacterial count below the maximum permissible under the Milk (Special Designations) Order; but in connection with (3) the attention of the Licensee was called to the high count and further samples were found to comply with the prescribed conditions.

"Certified" Milk:

	On Agar at 37° C. in 2 days per 1 c.c.	Presence or absence of Coliform Bacillus in 1/10th c.c.	
(10)	5,160	Absent	
(11)	3,488	Absent	
(12)	9,213	Absent	
(13)	2,628	Absent	13% deficient in Fat.
(14)	2,186	Absent	
(15)	24,926	*Present*	
(16)	4,793	Absent	

Sample No. 15, as it contained B. Coli. in 1/10th of a c.c., did not comply with the conditions governing the production of "Certified" Milk.

Sample No. 13, also a "Certified" Milk, from the same source, was appreciably deficient in fat.

Letters were sent to the Retailer, and in view of the unsatisfactory reports the Producer did not again apply for the necessary Certificate to produce "Certified" Milk.

Ordinary Milk:

	On Agar at 37° C. in 2 days per 1 c.c.	Presence or absence of Coliform Bacillus
(17)	47,700	Present in 1/10th c.c.
(18)	93,000	Present in 1/10th c.c. Absent in 1/100th c.c.
(19)	1,000,000	Present in ONE c.c. Absent in 1/10th c.c.
(20)	41,000	Present in ONE c.c. Absent in 1/10th c.c.

(21)	72,000	Present in 1/10th c.c. Absent in 1/100th c.c.
(22)	272,000	Present in 1 c.c. Absent in 1/10th c.c.
(23)	105,900	Present in 1/100th c.c.

The latter sample was also examined for Typhoid Group, but with negative results.

In the cases where Coliform Bacilli were present in 1/10th c.c., the Vendors' attention was drawn to the fact with a request that the farmers concerned use more cleanly methods in the production of the milk.

Sample (19) was obtained from a Dairyman registered in the County but who retails milk within the City. In this case the Medical Officer of Health of the area in which the dairyman resides was communicated with in connection with the abnormally high bacterial count.

Milk and Dairies Order, 1926.—During the year, 8 applications were received for registration of Dairy premises, and after alterations had been carried out, the registrations were granted.

At the end of 1931 there were on our registers:—

Cowkeepers	18
Dairymen	61
Retail Purveyors of Milk	8
Retail Purveyors residing outside the City who retail milk within the City	51
Shopkeepers selling Sterilized Milk in bottles ..	18

Cowsheds.—At the end of 1930 there were 7 Cowsheds, with a total of 70 cows, in the City; but in consequence of the City Boundary Extension in October 1931, 9 new Cowsheds, with a total of 170 cows, were added to our Registers.

All the cowsheds have been periodically visited by the District Inspectors; and the Council's Veterinary Inspector, accompanied by the Chief Sanitary Inspector, have examined the cows in various herds within the City. Any suspected animal was milked in the presence of these Officers, and 8 samples of milk were taken for bacteriological examination. All the samples were certified by the Analyst to be free from tuberculosis.

Meat and Other Foods.—Regular visits have been paid to all butchers shops and stalls, also to food and provision shops, and generally these premises were found to be in a satisfactory condition.

Several shops have been fitted with new fronts, tiled walls, etc., and so altered as to bring them up to modern requirements.

Speaking generally, all premises where products of the meat trade are prepared and stored for sale, have been found to be in a satisfactory condition. It is pleasing to note that the butchers on 69 occasions immediately notified your Official when they discovered any abnormal condition in carcases or organs during the process of slaughtering.

With regard to the transport and handling, constant vigilance is necessary to ensure that the regulations govern-

ing the transport and handling of meat are complied with. Many butchers now use properly covered vans for the transport of meat from the Public Abattoir and cold stores. One carrier has on several occasions been cautioned with regard to the cleanliness of the cloths and material covering the meat.

There is one Ice Store in the City owned by a Private Company, and at one time this structure was hard pressed to meet the demands made upon it, but owing to the installation of private plants by most of the larger retail butchers the situation has changed, and there is now ample accommodation there for those who have to make use of it. This Cold Store is constantly being visited by your Officials, both for inspecting the goods deposited there, but more particularly to inspect and examine carcases of imported mutton for the detection of Lymphadenitis.

60 notifications of slaughter were received during the year from Pig feeders who desired to kill pigs on their own premises, and the carcases of 68 pigs were inspected.

All the meat stalls in the City are situated in a covered Market, controlled by the Markets Committee, and the majority of meat on sale at these stalls is either imported or has been killed and inspected at the Public Abattoir.

Unsound Food.—During the year, the following food has been destroyed as being either diseased or unwholesome, viz.:—

Tuberculosis:

Cattle	22	Carcases and organs
	39	Heads and tongues
	26	All organs
	34	Lungs
	8	Livers
Pigs	6	Carcases and organs
	10	Heads and organs
	25	Heads
	9	All organs
Calves	1	Carcase and organs

Other Diseases:

Cattle	29	Carcases and organs
	12	Heads and tongues
	16	All organs
	13	Lungs
	75	Livers
Sheep	24	Carcases and organs
	220	Livers
	8	Lungs
Lambs	2	Carcases and organs
	1	Lung
	1	Liver
Pigs	8	Carcases and organs
	37	Other organs
Calves	4	Carcases and organs
	3	Livers and Lungs

Meat	658 lbs.
Fish	164 lbs.
Potatoes	4 cwts.
Tripe	50 lbs.
Tinned Goods	41 lbs.
Oranges	40 lbs.

The total weight of food condemned during the year was: 13 tons, 13 cwts. 0 qrs. 15 lbs. All the food, with one exception mentioned below, was voluntarily surrendered by the respective owners, and after being condemned was either burnt at the Slaughterhouses or conveyed on the Corporation Motor Lorry to the Birmingham Destructors, the cost of such haulage being £25 10s. 0d. for the year.

Two summonses were issued against a well-known firm of Pork Butchers and two against their Manager for (1) selling, and (2) exposing for sale certain pork which was unfit for the food of man. Fines were inflicted in each case amounting to £10.

Public Slaughterhouses.—The Public Slaughterhouses were opened in the year 1868, and have from time to time been brought up to date.

Mr. Ralph Taylor, Chief Sanitary Inspector, attends the Public Slaughterhouses each morning, and all meat and internal organs are inspected before removal. The Manager, Mr. A. R. Underwood, keeps the premises well

under control and exercises supervision over the animals slaughtered.

As will be seen from the following table, greater use has been made of the facilities afforded at the Public Slaughterhouses during the past year, as compared with the four previous years:—

	To March 31st				
	1928	1929	1930	1931	1932
Beasts ..	2,264	2,275	2,326	2,242	2,390
Sheep ..	10,760	10,410	9,827	9,289	12,616
Calves ..	869	795	854	616	634
Pigs ..	4,023	4,246	3,217	3,656	4,961
	17,916	17,726	16,224	15,803	20,601
Amount received for slaughtering ..	£517	£589	£583	£547	£667

Private Slaughterhouses.

At the end of 1931 there were 20 Registered Private Slaughterhouses and 1 Licensed Slaughterhouse in the City.

All the Slaughterhouses with one exception are known as Registered Private Slaughterhouses and were in existence when the powers under Section 127 of the Town Improvement Clauses Act, 1847, came into operation in the City in 1858, and consequently they are not subject to the

Licencing provision of the Public Health Amendment Act, 1890.

The Slaughterhouses are regularly visited, sometimes two or three times per week, to see that the Bye-Laws are complied with and to inspect as far as possible the meat killed therein.

On several occasions it has been necessary to draw the attention of the occupiers to the need for limewashing and for the removal of garbage.

Most of the occupiers do their best to keep the Slaughterhouses as clean and in as good order as their structures will permit, but situated as many of them are in close proximity to dwellings, some degree of annoyance and discomfort to surrounding inhabitants is inevitable.

The Bye-Law 9 (b) is in operation in the City, compelling the Butchers to use the Mechanically Operated instrument for stunning Cattle and Calves before slaughter.

The Cash Captive Bolt Pistol is the instrument generally in use both for the Public and the Private Slaughterhouses, and it is giving every satisfaction. I do not think that even the opponents to the mechanical killer would now wish to return to the Pole-axe.

Food and Drugs (Adulteration) Act, 1928.—The number of samples of Food and Drugs submitted to the Analyst during the year 1931 was 189, namely: 108 under the Act, and 81 Test Samples.

Of the 108 samples taken under the Act, 98 were certified to be genuine, and 10 adulterated; and of the 81 Test samples, 80 were found to be genuine, and 1 adulterated.

	1929		1930		1931	
	Formal	Informal	Formal	Informal	Formal	Informal
Analysis	120	61	112	78	108	81
Adulterated	11	1	5	—	10	1
Adulterated, per cent	9.17%	1.64%	4.46%	—	10.8%	1.2%
Amount of Fines & Costs	£7 2 0		14s. 6d.		£16 4 0	

Cream.—8 Test samples of Cream were taken during the year, and they were all certified to be free from preservatives and of good quality as regards Butter Fat.

Public Health (Preservatives, &c., in Food) Regulations.—Included in the 189 samples sent to the City Analyst were samples of food taken under the above Regulations, viz.:—

5 Jams
2 Peas
1 Candied Peel
4 Sausage
2 Pickles
2 Paste Foods
2 Beers

Public Health (Condensed Milk) Regulations, 1923.—12 samples of Condensed Milk were submitted for analysis, and in each case the samples conformed to the requirements of the Regulations, and were properly labelled.

Milk.—Of the 90 samples of Milk taken during the year, 11 were reported against as adulterated. Particulars of the action taken are given under a previous paragraph in this Report.

1931

Summary of Samples Taken for Analyses.

	Under Act.	Test.
Milk	77	13
Condensed Milk	—	12
Butter	9	9
Cream	—	8
Cheese	2	—
Flour	—	2
Ground Ginger	—	2
Jam	3	2
Lard	4	2
Arrowroot	—	2
Pickles	—	2
Ice Cream	4	—
Bread	—	2
Peas	2	—
Candied Peel	1	—
Margarine	1	—
Xmas Sweets, Assortments	—	8
Paste Foods	—	2
Whisky	—	1
Brandy	—	2
Beer	—	2

	Under Act.	Test.
Sausage	4	—
Ham and Chicken Roll	1	—
Camphorated Oil	—	2
Gregory Powder	—	2
Zinc Ointment	—	1
Boric Ointment	—	1
Ammoniated Tincture of Quinine ..	—	2
Olive Oil	—	1
Flowers of Sulphur	—	1
Total	108	81

Fertilisers and Feeding Stuffs Act, 1926.—During the year the following samples have been taken from various Corn and Seed Merchants in the City, viz.:—

Fertilisers:—

Raw Bone Meal	1 sample
Organic Allotment Fertiliser	1 sample
Shoddy Manure	3 samples
Raw Peruvian Guano ..	1 sample (Test)
	6 samples

Feeding Stuffs:—

Barley Meal	1 sample
Dairy Nuts	1 sample
White Fish Meal	2 samples
	4 samples

In each case, the samples were certified by the Analyst to be up to the standard mentioned on the Statutory Statement given on the article or posted in the shop or warehouse.

Merchandise Marks Act, 1926.—Circular letters were sent to all traders in the City giving particulars of the labelling necessary when Imported Foods such as Raw Tomatoes, Eggs, Currants, Sultanas and Raisins, Oat Products, Honey and Fresh Apples are exposed for sale.

Numerous visits have been made to the Shops by myself and the District Inspectors, and close attention has been given to the various requirements as to marking.

A number of shopkeepers have been warned, but it requires constant visits to keep the shopkeepers up to standard, as during cleansing the Assistants forget to replace the Labels.

National Marks Produce.—A National Marks Scheme has been established for Eggs, Apples, Pears, Tomatoes, Cucumbers, Canned Fruit and Vegetables, Home-killed Beef, Malt Flour, dressed Poultry, Strawberries and Cherries.

There has been an increase in these various goods on sale in the City.

Rat Campaign.

The following is a copy of the report which was sent to the Ministry of Agriculture in December.

Health Department,
Guildhall,
WORCESTER.

2nd December, 1931.

To
The Chairman and Members of the
Health Committee.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

At the request of the Ministry of Agriculture, I beg to submit my Annual Report with regard to the Rat Destruction Campaign in the City of Worcester for the year ended 7th November, 1931.

As in former years the campaign has not been confined merely to one Rat Week in the year, but has been a continuous effort throughout the whole year.

Since the year 1919 when the Rat and Mice Destruction Act came into force, your Committee have always taken a definite line and offered a small reward for every rat killed in the City and brought to the Health Department, and this practise has been continued during the past year, the fee per rat being 4d.

The result of our annual campaign up to the 7th November last has shown that 6,740 rats have been slaughtered. This compares with 4,210 for the previous year—an increase of 2,530. Altogether, a total of 42,429 rats have been accounted for since our campaign commenced in the year 1919, and the following comparative figures might prove interesting:—

	Year Ended			
	10-11-28	11-11-29	11-11-30	7-11-31
No. of Rats killed and brought to the Health Office —excluding Rat Week	4,343	3,921	3,947	6,311
ditto, during Official Rat Week ..	242	319	263	429

From these figures it will be observed that the year 1931 has shown a marked increase in the number of rats destroyed. In my opinion, the main reasons for this increase are:—

(1) That the weather conditions which prevailed during the past summer favoured the breeding propensities of rats.

(2) That in consequence of the River Severn being constantly high, the rats have been driven into the City.

(3) That owing to the award of 4d. per rat and the large amount of unemployment existing, more active interest has been taken in the campaign, with the result that the rat haunts throughout the City are constantly being disturbed.

With regard to point (1), it appears from reports issued that the Rat Menace during the past year has been a very real one throughout the Country, but to cope with the menace further efforts have been put forward by the Local Authorities, with the result that the public have been aroused and more active steps are now being taken in the work of destruction of this pest.

With reference to point (3), there is no doubt whatever that the inducement of a reward has been the means of sustaining the public interest, and that if this practise were discontinued altogether apathy would follow and the rats would be allowed to breed without disturbance.

It may be argued that a Local Authority has the power under the Rat and Mice Destruction Act, 1919, to take proceedings against an occupier of premises which are infested with rats; but it is often difficult to place responsibility on any special person. On the other hand, the award per rat which your Committee offer is an incentive to a man for visiting rat-infested haunts with dogs and ferrets, thus continually disturbing the rats and not allowing them to provide permanent breeding places.

In addition to the monetary grant, the following steps have also been taken by the Health Department to trace the breeding places and the source of infestation:—

(1) By the inspection of premises on complaints being made as to the presence of rats; testing of the drains thereof by means of the smoke-test; calling upon the Owner of premises to make good any defects found in the drainage system, and also to take steps to have the premises made rat-proof.

(2) By the loan of rat cages and the giving of poisons and rat-lime where traps are found useless. (The latter plan is only adopted when there is no danger of other animals having access to the poison baits.)

(3) The baiting of sewers.

The following incident shows how necessary it is that the Rat Campaign should not be confined merely to one Rat Week in the year, but should be continuous, viz.:—

In one large Public building the presence of rats causes a constant annoyance to the occupiers and also much damage to property. To obviate this, the Caretaker (who has become quite a "Pied Piper of Hamelyn") is continually laying traps both of the cage-type and rat-lime, with the result that rats are being caught almost daily. Whilst the caretaker took his annual holiday, however, serious complaints were made of the presence of rats and much damage was done. Steps were at once taken by this Department to have the drains of the building smoke-tested; but whilst several minor defects in the drainage system were remedied, yet it is impossible without constant daily effort by trapping, to keep the rats in check as they gain access to the building over the roof from other premises in the vicinity. The property in the district in question is of a very old type and cannot be rendered rat-proof without entire reconstruction.

The cost to the City for the year just ended has been about £114, but, in my opinion, the money has been exceedingly well spent: had this £114 been not so expended, there would have been an alarming amount of damage caused to property by rat infestations with the added risk of danger to public health, and in a short time a serious menace would exist.

I am, Ladies and Gentlemen,

Your obedient Servant,

RALPH TAYLOR,

Chief Sanitary Inspector.

Canal Boats Acts, 1877 **and** 1884.—During the year ended 31st December, 1931, the various locks and waterways have from time to time been visited, and 30 Canal Boats were met with.

The condition of the boats, with the exception of the five infringements mentioned below, were found to be satisfactory and quite up to the standard of former years.

The following infringements were discovered on the boats:—

Boats not registered	1
Boats not properly marked ..	1
Cabins required to be repainted	3

The usual complaint note to the Owner or request to the Master had the desired effect of remedying these contraventions, and in no case was it necessary to institute proceedings.

Early in the year reports were received from the Port Sanitary Authority of Bristol that barges carrying a cargo from a plague-infected boat were proceeding to Worcester.

The danger in such a case as this arises from the possible presence in the cargo of plague-infected rats.

During the unloading at Worcester of the cargo, every precaution was taken against rats from the barges getting ashore. The whole unloading was supervised by the staff of the Sanitary Department and no rats were observed.

The total number of persons living in the boats was found to be:—43 Men, 12 Women, and 8 Children. 6 Children were under 5 years of age, and 2 Children between 5 and 12 years.

The total registered accommodation was for 84 Adults. The actual number of occupants equalled 63 Adults (2 Children under 12 years of age being counted as one person).

Experiments to provide heating and cooking facilities on the boats which carry petrol to the large depots in the City are still being carried out. It will be understood that it is very dangerous to carry a naked light on boats carrying some 60,000 gallons of petrol.

The total number of boats registered at the end of the year 1931 was 125. Of this number I believe 44 to be in use or available for use, and 81 which cannot be traced.

One boat was re-registered owing to change of ownership, particulars being sent to the Gloucester Authority for the previous registration to be cancelled.

Prevalence of, and Control over, Infectious Diseases.

There were no unusual outbreaks of infectious disease during the year. No cases of Smallpox were notified and only 1 case of Malaria and 1 of Encephalitis lethargica.

Diphtheria.—There was again a low incidence of diphtheria, from which the City keeps remarkably free: and apart from cases needing tracheotomy the disease was very mild in character.

38 cases were notified, with 4 deaths.

These 4 deaths followed the operation of tracheotomy for which surgeons are engaged.

Scarlet Fever.—138 cases occurred with no deaths.

There were 9 secondary cases.

Influenza.—There were 2 deaths ascribed to influenza during the year, as compared with 3 in 1930 and 50 during 1929.

Neither the Schick nor the Dick Test have been put into general use to secure immunisation against Diphtheria and Scarlet Fever respectively, though all new Nursing Staff at the Infectious Diseases Hospital are, if found susceptible, immunised against Diphtheria.

No vaccinations were carried out by the Medical Officer of Health under the Public Health (Smallpox) Regulations 1917.

Measles.—Beds have now been made available at the City Hospital for the treatment of severe cases of Measles; and any cases occurring in the Worcester General Infirmary are admitted on request.

The following table indicates the incidence of notifiable infectious disease during the year:—

	Cases notified
Scarlet Fever	138
Diphtheria	38
Puerperal Pyrexia	12
Puerperal Fever	3
Erysipelas	9
Ophthalmia Neonatorum	10
Encephalitis Lethargica	1
Meningococcal Meningitis	1
Malaria	1
Paratyphoid Fever	1
Acute primary Pneumonia	89
Acute Influenzal Pneumonia ..	9

Tuberculosis:

Pulmonary	74
Non-pulmonary	18

In 6 cases of Scarlet Fever, where the home conditions were such as to permit of adequate isolation, the patients were isolated at home. The remaining cases were admitted to hospital.

The incidence of Scarlet Fever and Diphtheria at Elementary Schools is indicated by the following table:—

School.	Scarlet Fever.	Diphtheria.	Total.
British	2	—	2
Cherry Orchard	—	—	—
Comer Gardens	1	—	1
Holy Trinity	3	1	4
Hound's Lane	4	1	5
Red Hill	1	—	1
Stanley Road	3	2	5
St. Barnabas	9	5	14
St. Clement	3	—	3
St. George, Claines ..	11	—	11
St. George, R.C. ..	8	—	8
St. John	2	1	3
St. Martin	6	—	6
St. Mary	6	—	6
St. Nicholas	1	3	4
St. Paul	2	1	3
St. Peter	5	10	15
St. Stephen	17	2	19
Totals	84	26	110

Cancer.—There were 85 deaths from Cancer during the year.

The following table shows the incidence of the disease in the City for the past 10 years:—

Year	Deaths	Percentage of total deaths	Percentage of total Population
1922	60	9.0	.122
1923	55	10.03	.1103
1924	60	9.8	.119
1925	79	12.2	.157
1926	57	9.1	.112
1927	73	11.1	.143
1928	103	12.7	.196
1929	88	12.9	.167
1930	70	11.5	.133
1931	85	12.1	.167

City Isolation Hospital.—The following table summarises the work done at the City Isolation Hospital, Newtown Road, during 1931:—

	In Hospital 1-1-31	Admitted	Total	Discharged	Died	Remaining 1-1-32
Scarlet Fever	35	141	176	161	—	15
Diphtheria	6	42	48	43	4	1
Typhoid	1	—	1	1	—	—
Other Diseases	—	11	11	10	1	—
Tuberculosis	31	68	99	52	13	34
Totals	73	262	335	267	18	50

The minimum number of patients at any time was 46, and the maximum 77, the average throughout the year being 60.

The expenses of the hospital amounted to £6,678 against which £557 was received on account of the treatment of patients from other areas.

The average daily food costs were 1s. 4½d. per head inclusive of Staff.

During the year a scheme was submitted to extend the administrative block. This would have provided more and better accommodation for Staff, some of whom at present have insufficient privacy, and would have secured additional beds for cases of cross infection and mixed infection.

Unfortunately, on the grounds of economy the scheme has had to be dropped for the present.

The enlarged sewage disposal plant laid down in 1931 functions satisfactorily.

To provide adequate protection against fire at the Hospital, a "Davy" safety device with two attachment points has been installed in bedrooms in the administrative block, and a large storage tank to provide ample water supply for use of the fire engine is nearing completion.

The Tuberculosis beds have kept full throughout the year. Two new shelters have been erected and two more will be put up if the pressure on beds necessitates this.

At the end of 1931 the waiting list was small and no patients had been on the waiting list for any length of time.

Lectures are now given weekly by the Medical Officer of Health to the Nursing Staff at the Hospital, and it is planned to send in nurses for the State Examination in Fever Nursing in 1932.

Cleansing and Disinfection.—At the Municipal Homes there are facilities for the cleansing and disinfection of verminous persons.

The following are particulars in regard to disinfection of rooms, bedding, etc., after infectious disease:

Number of rooms fumigated after infectious disease	331
Number of beds taken to Newtown Hospital for steam disinfection after infectious disease ..	25
Number of rooms fumigated on account of vermin	73

Infected bedding, clothing, etc., is disinfected at the City Isolation Hospital in the high-pressure steam sterilizer, being conveyed there in a horse-drawn van.

Ward disinfection is also carried out as required at the hospital.

Fluid disinfectant in suitably labelled tins is supplied to householders for disinfecting purposes after the occurrence of infectious disease or in cases of infestation by vermin.

Prevention of Blindness.—No special action was taken during the year under Section 66 of the Public Health Act, 1925.

Ophthalmia Neonatorum.—The following table shows the incidence of ophthalmia neonatorum and gives the result of treatment:—

Case	Date Notified	Treated at Home	Treated at Hospital	Vision Unimpaired	Vision Impaired	Blindness
No. 1	Jan. 24th.	—	1	1	—	—
No. 2	Feb. 15th.	—	1	1	—	—
No. 3	Mar. 30th.	—	1	1	—	—
No. 4	Mar. 28th.	—	1	1	—	—
No. 5	Mar. 29th.	—	1	1	—	—
No. 6	April 27th.	—	1	1	—	—
No. 7	May 22nd.	—	1	1	—	—
No. 8	May 22nd.	—	1	1	—	—
No. 9	Aug. 25th.	—	1	1	—	—
No. 10	Aug. 28th.	—	1	1	—	—
		—	10	10	Nil	Nil

Tuberculosis.

Notification.—82 cases of Tuberculosis were notified, 10 cases coming to the knowledge of the Medical Officer of Health without previous notification. A doctor's attention is always drawn to any failure to notify tuberculosis, and there was, during the year, no refusal to notify.

Deaths.—There were 51 deaths, and of these one had not previously been notified.

The ratio of non-notified to total deaths was 1 to 50.

The following tables show the incidence of notified cases and of deaths according to age groups:—

Extract from Circular 939, *dated* 13*th December,* 1928 (*adapted to relate to the year* 1931.)

TUBERCULOSIS.

New Cases and Mortality During 1930.*

Particulars of new cases of tuberculosis and of all deaths from the disease in the area during 1931 should be given in the Report in the following form :—

Age Periods	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0	—	—	—	—	—	—	—	—
1	—	—	3	—	1	1	1	—
5	3	2	4	—	—	—	1	—
10	—	5	1	2	—	2	—	—
15	5	4	2	1	4	3	—	—
20	8	9	1	3	4	5	—	1
25	8	10	1	—	5	7	—	1
35	8	4	—	—	5	3	—	—
45	6	1	—	—	5	1	—	—
55	1	—	—	—	1	—	—	—
65 & upwards	—	—	—	—	—	—	—	—
Total	39	35	12	6	25	22	2	2
	74		18		47		4	

Non-Notified Deaths 1 Ratio 1 to 50.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1924.

Number of cases of Tuberculosis remaining on the Registers of Notifications kept by the Medical Officer of Health in the County Borough, on the 31st Dec., 1931 :—

Pulmonary			Non-Pulmonary			Total Cases
Males	Females	Total	Males	Females	Total	
133	114	247	37	32	69	316

It will be noted that there is a large difference between the figure of 641 remaining on the notification Register at 31st December, 1930, and the 316 remaining on the Register at the end of 1931.

This is due to the fact that in the light of the Public Health (Tuberculosis) Regulations 1930, a complete overhaul was made of the Notification Register and over 200 names were removed.

Cases of surgical tuberculosis notified are classified below:—

Peritoneum	3
Hips	2
Neck Glands	3
Ribs	1
Knee joints	1
Abdomen	5
Tabes Mesenterica	1
Spine	1
Meninges	1
	18

Comparison of notifications and deaths with the past 18 years is shown below: and the Death Rate compared with that of England and Wales for the last 10 years:—

Year.	Cases Notified.			Total Deaths from all forms of Tuberculosis.	Death Rate per 1000 Population.	
	Pulmonary.	Non-Pulmonary.	Total.		Worcester.	England & Wales.
1931	74	18	92	51	1·00	–
1930	78	13	91	45	0·86	0·743
1929	74	17	91	43	0·81	0·932
1928	55	22	77	49	0·93	0·909
1927	64	20	84	54	1·06	0·952
1926	75	29	104	44	0·87	0·942
1925	75	34	109	61	1·21	1·017
1924	80	29	109	49	0·97	1·039
1923	68	34	102	55	1·10	1·049
1922	92	22	114	57	1·16	1·107
1921	93	25	118	48	0·95	1·117
1920	69	29	98	53	–	–
1919	89	30	119	65	–	–
1918	83	43	126	91	–	–
1917	102	26	128	79	–	–
1916	86	27	113	66	–	–
1915	85	37	122	70	–	–
1914	116	46	162	67	–	–
1913	133	27	160	79	–	–

Occupational mortality is indicated by the details given below:—

Males		Females	
Clerks	4	Seamstress	1
Electricity Foreman	1	Domestic Servants	2
General Labourers ..	9	Gloveress	2
School Teacher ..	1	Draper's Assistant	1
Gardener	1	Shorthand Typist ..	1
China Dealer ..	1	Housewives ..	7
Lorry Driver	1	No occupation ..	9
Railway Fireman ..	1		
Carpenter	1		
Taxi Driver	1		
Newsagent	1		
Horse Carter ..	1		
Milling Hand ..	1		
Glove Cutter ..	1		
Hawker	1		
No occupation ..	2		
	28		23

14 deaths occurred within six months of notfication, the varying periods being shown below:—

Deaths occurring within	Pulmonary			Non-Pulmonary		
	M.	F.	Total	M.	F.	Total
1 week	3	—	3	2	—	2
2 weeks	1	—	1	—	—	—
3 weeks	—	1	1	—	—	—
4 weeks	—	—	—	—	—	—
2 months ..	—	1	1	—	—	—
3 months ..	2	1	3	—	—	—
6 months ..	2	1	3	—	—	—
Total ..	8	4	12	2	—	2

Extent of Tuberculosis.—At the end of the year there were 316 notified cases of Tuberculosis upon the Health Department Register.

Housing of Tuberculosis Cases.—During the year the attention of the Housing Committee was drawn in 6 instances to the unsatisfactory housing conditions under which tuberculosis patients were living; but it was not possible to make any allotment of Council Houses to these patients, as no new houses were available.

Tuberculosis Dispensary.—The work of the Dispensary is tabulated on pages 103 & 104.

Visiting.—2,100 visits were paid by the Tuberculosis Nurse.

Dental Treatment.—Five patients received dental treatment at the hands of Mr. Matley Moore.

Extra Nourishment was supplied to 35 patients at a cost of £42.

Public Health (Prevention of Tuberculosis) Regulations, 1925.

Public Health Act, 1925, Section 62.

It was not necessary to remove any patient to a sanatorium compulsorily under this section.

Artificial Pneumothorax.—This form of treatment of pulmonary tuberculosis was given to 5 patients during the year.

SANATORIUM TREATMENT.

Newtown Hospital.—Pressure upon sanatorium beds —more particularly for males—has continued during the year, and two new shelters were erected at Newtown Hospital.

Two additional shelters will be erected during 1932.

Knightwick Sanatorium.—The 9 beds maintained by the Council—4 for males and 5 for females—have been kept fully occupied during the year.

Pressure upon sanatorium beds is accounted for by the greater readiness of patients to accept sanatorium treatment and their willingness to remain for longer periods of treatment.

The extent of sanatorium treatment during the year and the immediate result is indicated in subjoined tables.

Venereal Diseases.—The County and City Councils maintain at the Worcester General Infirmary a conjoint clinic under their respective schemes for the treatment of Venereal Diseases.

The work done on behalf of the City at the Clinic is tabulated below:—

Number of City cases dealt with during the year for the first time and found to be suffering from :—

Syphilis	22
Gonorrhœa	29
Conditions other than venereal	19
Total	70

Total number of attendances of all City patients	3,308
Aggregate number of " In-patient days " of all City patients	485
Number of doses of arsenobenzene compounds given to City patients	489

During the year the City of Birmingham Pathological Laboratories reported upon 476 specimens submitted in connection with venereal disease.

Mental Deficiency Acts.—Ascertainment.—Excluding defectives whose care devolves upon the Education Committee, there were at the beginning of the year the following defectives known to the Mental Deficiency Act Committee:—

In Institutions		27
On licence from Institutions		1
Under Guardianship		8
On Licence from Guardianship		—
In Places of Safety		1
Under Statutory Supervision		25
Awaiting disposal		2
Under Voluntary Supervision		37
Total, 1st January, 1931		101
Less		
Died	1	
Removed	—	
	—	1
		100

Add	
New Cases	5
On Register, 31st December, 1931 ..	105

During the year 1 defective died, and 5 new cases were taken on the register. 1 was placed in an institution and 2 under guardianship following petitions.

The usual visits to defectives under guardianship have been paid by Miss Tree, the visiting and petitioning officer, and the Medical Officer of Health.

At the Occupation Centre at Angel Place the supervision of the defectives has been taken over by Miss Webb who replaces Mrs. Bowring, while Mr. Johnson continues to conduct his Woodwork Class for defectives at St. John's.

Following repeated representations from the Board of Control, efforts have been made during the year to provide additional institutional accommodation for defectives by collaboration with other authorities; but no tangible results have accrued.

In view of the present trend towards reduction of the cost of social services, it is probable that the demands for additional institutional accommodation may become less insistent.

Institutional accommodation for individual defectives is, however, still difficult to obtain; and the placing of a single defective in an institution entails an amount of administrative work out of all proportion to the defective's importance to the community.

Mental Treatment Act, 1930.—The reader is referred to my 1930 report for details regarding the scope and objects of this new legislation.

During the year the clinic set up, in collaboration with the County Authorities, for investigation and treatment of incipient mental disorder has been continued under the medical charge of Dr. Fenton, Medical Superintendent of Powick Mental Hospital.

So far the Council has concerned itself only with the provision of an Out-Patient Clinic for the treatment of incipient mental disorder.

The Clinic is held once a week at the Worcester General Infirmary, the expenses being shared between the County and City Authorities.

Patients are referred to the Clinic by their own doctors, and Dr. Fenton, Medical Superintendent of Powick Mental Hospital, who is in charge of the Clinic, reports that during the year 4 male and 5 female patients from the City were treated. All were discharged recovered or improved, and in no case was certification necessary.

Although new patients treated during 1931 were fewer than those in 1930, this does not detract from the value of the work.

The purpose of the clinic is preventive. The 9 patients treated were potential lunatics. If treatment at the Mental Clinic was the means of saving all or any of them from being admitted to the Mental Hospital, it represents a valuable social and economic gain.

Local Government and Other Officers' Superannuation Act.—11 candidates for office under the Corporation were examined by the Medical Officer of Health under the above Act.

Of these, one was rejected; two were referred for dental and optical treatment and subsequently accepted, and 8 passed fit at once.

Public Health Propaganda.—The local edition of *Better Health*—the monthly paper dealing with health matters from the preventive aspect—continued to be published until November, when it was temporarily discontinued.

Advertisements, which go to defray the cost of publication, proved difficult to obtain: in consequence, I am informed, of a boycott of the advertisement space by local traders who resented the sale of the front page to the Co-operative Society—the only trading organisation in the City willing to take it.

The loss of this means of health propaganda, which had not cost the rates a penny, is to be regretted. It is hoped it is only temporary and that at some near date the publication may reappear.

Public Health (Tuberculosis) Regulations, 1930.

Summary of Notifications for the year 1931.

ge periods:	Formal Notifications — Primary Notifications.												Total Notifications
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up	Total All ages.	
nonary.													
ales	...	...	2	...	5	8	7	8	5	1	...	36	39
emales	...	...	2	4	4	8	7	4	1	...	...	30	35
-Pulmonary.													
ales	...	3	4	...	2	1	1	...	...	...	...	11	12
emales	...	...	...	2	1	2	...	...	...	...	...	5	6

Supplemental Return.

New Cases of Tuberculosis coming to the knowledge of the Medical Officer of Health or Chief (Administrative) Tuberculosis Officer during the year, 1931, otherwise than by formal notification.

Age periods :	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & up-wards	Total Cases.
Pulmonary Males ...	...	...	1	...	...	...	1	...	1	...	...	3
,, Females...	...	...	...	1	...	1	3	...	...	...	...	5
Non-pulmonary Males	...	...	...	1	...	...	...	...	...	...	...	1
,, Females...	...	...	...	...	...	1	...	...	...	...	...	1

Source of Information.	No. of Cases.	
	Pulmonary.	Non-pulmonary.
Death Returns { from local Registrars	...	1
Death Returns { transferable deaths from Registrar General	...	...
Posthumous notifications	...	...

TABLE I.

TUBERCULOSIS SCHEME.

Return Showing the Work of the Dispensary (or Dispensaries) during the Year 1931.

Diagnosis	Pulmonary				Non-Pulmonary				Total				Grand Total
	Adults		Children		Adults		Children		Adults		Children		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
—New Cases examined during the year (excluding contacts) :—													
(a) Definitely tuberculous ...	41	23	4	4	5	7	6	5	46	30	10	9	95
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	5	5	—	1	11
(c) Non-tuberculous	—	—	—	—	—	—	—	—	3	7	6	2	18
—Contacts examined during the year :—													
(a) Definitely tuberculous ...	1	3	—	—	—	—	—	—	1	3	—	—	4
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	5	3	2	1	11
(c) Non-tuberculous	—	—	—	—	—	—	—	—	12	31	34	28	105
—Cases written off the Dispensary Register as													
(a) Recovered ...	3	6	—	—	2	3	1	1	5	9	1	1	16
(b) Non-tuberculous(including any such cases previously diagnosed and entered on the Dispensary Register as Tuberculous)	—	—	—	—	—	—	—	—	28	53	57	38	176
—Number of Cases on Dispensary Register on December 31st													
(a) Definitely tuberculous ...	121	102	10	9	10	13	10	16	131	115	20	25	291
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	9	10	2	2	23

1.	Number of cases on Dispensary Register on January 1st	308
2.	Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years	14
3.	Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ..	20
4.	Cases written off during the year as Dead (all causes)	40
5.	Number of attendances at the Dispensary (including Contacts)	973
6.	Number of Insured Persons under Domiciliary Treatment on the 31st December.. ..	26
7.	Number of consultations with medical practitioners:—	
	(*a*) Personal	1
	(*b*) Other	—
8.	Number of visits by Tuberculosis Officers to homes (including personal consultations)	14
9.	Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	2,100
10.	Number of:—	
	(*a*) Specimens of sputum, etc., examined ..	101
	(*b*) X-ray examinations made in connection with Dispensary Work	27

11.	Number of "Recovered" cases restored to Dispensary Register, and included in A(*a*) and A (*b*) above	3
12.	Number of "T.B. plus" cases on Dispensary Register on December 31st	92

*(C) Number of beds available for the treatment of Tuberculosis on the 31st December in Institutions belonging to the { Council. / Joint Committee and its Constituent Authorities.

Name of Institution.	For Pulmonary Cases.		For Non-Pulmonary Cases.		Total.
	Adults.	Children under 15.	Adults.	Children under 15.	
Newtown Sanatorium, Worcester	28	–	–	14	42
King Edward VII Sanatorium, Knightwick, Worcs.	8	–	–	–	8

(D) RETURN SHOWING THE EXTENT OF RESIDENTIAL TREATMENT AND OBSERVATION DURING THE YEAR IN INSTITUTIONS (OTHER THAN POOR LAW INSTITUTIONS) APPROVED FOR THE TREATMENT OF TUBERCULOSIS.

		In Institutions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Institutions. (4)	In Institutions on Dec. 31s. (5)
Number of doubtfully tuberculous cases admitted for observation	Adult males	–	–	–	–	–
	Adult females	–	–	–	–	–
	Children	1	2	2	–	1
	Total	1	2	2	–	1
Number of definitely tuberculous patients admitted for treatment	Adult males	19	33	28	6	18
	Adult females	14	31	26	7	12
	Children	4	12	5	–	11
	Total	37	76	59	13	41
GRAND TOTAL		38	78	61	13	42

(E) RETURN SHOWING THE EXTENT OF RESIDENTIAL TREATMENT PROVIDED DURING THE YEAR IN POOR LAW INSTITUTIONS for persons chargeable to the { COUNCIL. / CONSTITUENT AUTHORITIES OF THE JOINT COMMITTEE.

		In Institutions on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st.
Number of patients suffering from pulmonary tuberculosis admitted for treatment.	Adult males	–	3	2	1	–
	Adult females	–	–	–	–	–
	Children	–	–	–	–	–
	Total	–	3	2	1	–
Number of patients suffering from non-pulmonary tuberculosis admitted for treatment.	Adult males	–	–	–	–	–
	Adult females	–	–	–	–	–
	Children	–	–	–	–	–
	Total	–	–	–	–	–
GRAND TOTAL		–	3	2	1	–

(F) Return showing the results of observation of doubtfully tuberculous cases discharged during the year from Institutions approved for the treatment of Tuberculosis.

Diagnosis on discharge from observation.	For Pulmonary Tuberculosis.						For Non-Pulmonary Tuberculosis.						Totals.		
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous															
Non-tuberculous						2									2
Doubtful															
Totals	–	–	–	–	–	2	–	–	–	–	–	–	–	–	2

(G) RETURN SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY TUBERCULOUS PATIENTS DISCHARGED DURING THE YEAR FROM INSTITUTIONS APPROVED FOR THE TREATMENT OF TUBERCULOSIS.

Classification on admission to the Institution.		Condition at time of discharge	Duration of Residential Treatment in the Institution															Grand Totals
			Under 3 months			3–6 months			6–12 months			More than 12 months			Totals			
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
PULMONARY TUBERCULOSIS.	Class T.B. minus.	Quiescent ...	–	2	1	1	–	–	1	1	–	–	–	1	2	3	2	7
		Not Quiescent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		Died in Institution	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Class T.B. + Group 1	Quiescent ...	2	–	–	2	1	–	1	–	–	–	–	–	5	1	–	6
		Not Quiescent	4	1	–	3	2	–	3	3	1	–	–	–	10	6	1	17
		Died in Institution	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Class T.B. + Group 2	Quiescent ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		Not Quiescent	–	1	–	–	3	–	3	6	–	3	–	–	6	10	–	16
		Died in Institution	2	–	–	–	1	–	–	–	–	–	–	–	2	1	–	3
	Class T.B. + Group 3	Quiescent ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		Not Quiescent	–	3	–	–	1	–	–	1	–	3	–	–	3	5	–	8
		Died in Institution	2	2	–	2	2	–	–	2	–	–	–	–	4	6	–	10
NON-PULMONARY TUBERCULOSIS.	Bones & Joints	Quiescent	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	1
		Not Quiescent	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	1
		Died in Institution	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Abdominal	Quiescent	–	–	–	1	–	–	–	–	1	–	–	–	1	–	1	2
		Not Quiescent	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	1
		Died in Institution	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Other Organs	Quiescent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		Not Quiescent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		Died in Institution	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	Peripheral Glands	Quiescent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		Not Quiescent	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		Died in Institution	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NEO-NATAL DEATH RATES
RATES FOR WORCESTER
RATES FOR ENGLAND & WALES
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
130
120
110
100
90
80
70
60
50
40
30
20
10
0

TABLE COMPILED BY THE REGISTRAR GENERAL.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE COUNTY BOROUGH OF WORCESTER.

CAUSES OF DEATH	Sex	All Ages	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—	
ALL CAUSES	M	348	22	10	5	4	20	16	18	34	51	89	79	
	F	352	26	3	6	6	14	19	17	25	44	67	125	
1. Typhoid and paratyphoid fevers	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	1	...	...	...	...	...	1	...	...	...	...	...	
2. Measles	M	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	1	...	1	...	...	...	...	...	...	...	...	...	
3. Scarlet fever	M		...	...	...	...	...	...	...	...	...	...	...	...
	F		...	...	...	...	...	...	...	—	...	...	...	...
4. Whooping cough	M	3	1	1	1	...	...	...	...	...	...	...	...	...
	F	1	1	...	...	...	...	...	...	...	...	...	...	...
5. Diphtheria	M	1	...	...	...	1	...	...	...	...	...	...	...	...
	F	2	...	1	...	1	...	...	...	...	...	...	...	...
6. Influenza	M	7	...	...	...	...	...	...	...	3	2	2	...	
	F	6	...	...	...	...	...	1	...	...	...	1	4	
7. Encephalitis lethargica	M	1	...	...	...	...	...	1	...	...	...	...	...	...
	F	1	...	...	1	...	...	...	...	...	...	...	...	...
8. Cerebro-spinal fever	M	1	...	...	...	...	1	...	...	...	...	...	...	...
	F		...	...	...	...	...	...	...	...	...	...	...	...
9. Tuberculosis of respiratory	M	25	...	...	1	...	8	5	5	5	1	...	...	
	F	24	...	...	1	2	10	7	3	1	...	...	...	
10. Other tuberculous diseases	M	5	...	...	...	1	2	...	1	...	...	1	...	
	F	2	...	...	...	...	1	1	...	...	...	...	...	
11. Syphilis	M	3	1	...	...	...	...	...	...	...	1	1	...	
	F	...	...	...	...	...	...	...	...	...	...	...	...	
12. General paralysis of the insane, tabes dorsalis	M	...	...	...	...	...	...	...	...	...	...	...	...	
	F	...	...	...	...	...	...	...	...	...	...	...	...	
13. Cancer, malignant disease	M	40	...	...	...	...	...	...	...	4	9	18	9	
	F	45	...	...	...	...	...	...	2	11	12	10	10	
14. Diabetes	M	1	...	...	...	...	...	...	...	...	...	1		
	F	4	...	...	...	...	...	...	...	1	2	1	...	
15. Cerebral hæmorrhage, etc.	M	18	...	...	...	...	...	...	...	2	1	9	6	
	F	25	...	...	...	...	...	...	...	1	2	13	9	
16. Heart disease	M	87	...	...	...	...	2	5	2	6	15	30	27	
	F	77	...	...	...	1	2	2	3	2	12	19	36	
17. Aneurysm	M	...	...	...	...	...	...	...	...	...	...	...	...	
	F	1	...	...	...	...	...	...	...	1	...	...	...	
18. Other circulatory diseases	M	12	...	...	...	...	...	...	...	...	4	1	7	
	F	19	...	...	...	...	...	...	...	...	3	2	14	
19. Bronchitis	M	16	1	1	...	...	...	...	...	1	1	4	8	
	F	12	...	...	...	...	...	...	...	...	...	7	5	
20. Pneumonia (all forms)	M	27	5	7	2	1	2	...	4	...	2	2	2	
	F	17	5	1	2	...	...	1	1	...	2	...	5	
21. Other respiratory diseases	M	5	...	...	...	...	...	...	...	...	1	3	1	
	F	2	...	...	...	...	...	...	...	...	...	...	2	
22. Peptic ulcer	M	6	...	...	...	...	...	1	...	3	2	...	...	
	F	1	...	...	...	...	...	...	...	...	1	...	...	
23. Diarrhœa, etc.	M	2	...	...	...	...	...	...	...	...	...	...	2	
	F	1	1	...	...	...	...	...	...	...	...	...	...	
24. Appendicitis	M	3	...	...	...	...	...	...	1	...	...	2	...	
	F	6	...	...	1	...	...	...	1	1	1	2	...	
25. Cirrhosis of liver	M	1	...	...	...	...	...	...	...	...	1	...	...	
	F	3	...	...	...	...	...	...	...	...	1	2	...	
26. Other diseases of liver, etc.	M	3	...	...	...	...	...	1	1	...	...	1	...	
	F	...	...	...	...	...	...	...	...	...	...	...	...	
27. Other digestive diseases	M	7	...	...	...	...	...	...	1	1	2	2	1	
	F	11	...	...	...	...	...	1	1	3	1	3	2	
28. Acute and chronic nephritis	M	11	...	...	...	...	...	...	...	3	3	3	2	
	F	13	...	...	...	...	1	...	2	...	2	3	5	
29. Puerperal sepsis	F	1	...	...	...	...	...	1	...	...	...	...	...	
30. Other puerperal causes	F	3	...	...	...	...	...	3	...	...	...	...	...	
31. Congenial debility, premature birth, malformations, etc.	M	11	11	...	...	...	...	...	...	...	...	...	...	
	F	16	16	...	...	...	...	...	...	...	...	...	...	
32. Senility	M	7	...	...	...	...	...	...	...	...	...	3	4	
	F	26	...	...	...	...	...	...	...	...	...	...	26	
33. Suicide	M	2	...	...	...	...	...	...	...	1	1	...	...	
	F	6	...	...	...	...	...	...	3	...	1	2	...	
34. Other violence	M	18	2	1	1	1	4	2	1	4	...	1	1	
	F	6	2	...	...	...	...	...	...	...	...	1	3	
35. Other defined diseases	M	25	1	...	...	...	1	1	2	1	5	5	9	
	F	19	1	...	1	2	...	1	1	4	4	1	4	
36. Causes ill-defined, or unknown	M	...	...	...	...	...	...	...	...	...	...	...	...	
	F	...	...	...	...	...	...	...	...	...	...	...	...	

No.	Causes of Death.	Ages.										All Ages.
		0-	1-	5-	10-	15-	20-	25-	45-	65-	85-	
1	Small-pox	...	...	...	...	...	...	...	...	...	...	...
2	Measles	...	1	...	...	...	...	...	...	...	...	1
3	Whooping Cough	1	2	...	...	...	...	...	...	...	...	3
4	Epidemic Influenza	...	...	...	...	...	...	1	...	1	...	2
5	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
6	Diphtheria	...	1	1	1	...	...	...	...	...	...	3
7	Enteric Fever	...	...	...	...	...	...	1	...	...	...	1
8	Paratyphoid Fever	...	...	...	...	...	...	...	...	...	...	...
9	Diarrhœa	...	...	...	...	...	...	...	...	...	...	...
10	Epidemic Enteritis	...	...	...	...	...	...	...	...	...	...	...
11	Enteritis	...	...	...	...	...	...	...	...	...	...	...
12	Rheumatic Fever	...	...	...	...	...	...	...	...	...	...	...
13	Encephalitis Lethargica	...	...	1	...	...	...	1	...	...	...	2
14	Erysipelas	...	...	...	...	...	...	...	...	...	...	...
15	Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...
16	Syphilis	...	...	...	...	...	...	...	...	...	...	...
17	Septicæmia	...	...	...	...	...	...	...	1	...	...	1
18	Tuberculosis of Lungs	...	1	...	2	6	13	17	8	...	...	47
19	Tuberculosis of Meninges	...	...	1	...	1	1	...	...	...	...	3
20	Abdominal Tuberculosis	...	1	...	...	...	...	...	...	...	...	1
21	Tuberculosis of Bones and Joints	...	...	...	...	...	...	...	...	...	...	...
22	Gout	...	...	...	...	...	...	...	...	...	...	...
23	Osteo Arthritis	...	...	...	...	...	...	...	...	...	...	...
24	Cancer	...	...	...	...	...	...	3	32	41	1	77
25	Diabetes Mellitus	...	...	...	...	...	...	...	3	1	...	4
26	Anæmia	...	...	...	...	...	...	...	1	...	...	1
27	Premature Birth	18	...	...	...	...	...	...	...	...	...	18
28	Injury at Birth	1	...	...	...	...	...	...	...	...	...	1
29	Congenital Defects	4	...	...	...	...	...	...	...	...	...	4
30	Debility at Birth	2	...	...	...	...	...	...	...	...	...	2
31	Marasmus	3	...	...	...	...	...	...	...	...	...	3
32	Old Age	...	...	...	...	...	...	...	...	26	26	52
33	Apoplexy	...	...	...	...	...	...	1	10	39	6	56
34	Meningitis	...	...	2	...	1	1	2	1	1	...	8
35	Convulsions	4	...	...	...	...	...	...	...	...	...	4
36	Softening of Brain	...	...	...	...	...	...	...	...	3	...	3
37	General Paralysis of Insane	...	...	...	...	...	...	...	...	...	...	...
38	Other forms of Insanity	...	...	...	...	...	...	...	1	3	...	4
39	Epilepsy	...	...	...	...	...	...	2	1	...	...	3
40	Diseases of the Spinal Cord	...	...	...	...	...	...	...	...	1	1	2
41	Endocarditis	...	...	...	1	1	2	7	19	30	2	62
42	Myocarditis	...	...	...	...	...	...	2	5	36	6	49
43	Arterio Sclerosis	...	...	...	...	...	...	...	6	27	1	34
44	Acute Bronchitis	1	3	...	...	...	...	1	1	9	1	16
45	Chronic Bronchitis	...	...	...	...	...	...	1	9	24	3	37
46	Lobar Pneumonia	2	3	...	...	1	1	9	5	2	1	24
47	Lobular Pneumonia	8	8	...	...	...	...	...	...	5	1	22
48	Other Lung Diseases	...	...	...	...	...	...	...	3	4	...	7
49	Diseases of Stomach	...	...	...	...	...	...	...	1	...	...	1
50	Appendicitis	...	1	...	...	...	...	2	1	4	...	8
51	Obstruction of Intestines	...	...	...	...	...	...	1	5	2	...	8
52	Cirrhosis of Liver	...	...	...	...	...	...	...	...	2	...	2
53	Other Diseases of Liver	...	...	...	...	...	...	1	...	1	...	2
54	Peritonitis	...	...	...	...	...	...	2	3	1	...	6
55	Acute Nephritis	...	...	...	...	...	...	...	...	...	...	...
56	Bright's Disease	...	...	...	...	...	2	2	8	9	1	22
57	Diseases of Bladder and Prostate	...	...	...	...	...	...	...	3	6	...	9
58	Tumours and Other Affections of Female Genital Organs	...	...	...	...	...	...	...	...	...	...	...
59	Accidents and Diseases of Parturition	...	...	...	...	...	...	4	...	...	...	4
60	Deaths by Accident or Negligence	3	2	1	...	1	4	3	5	4	2	25
61	Deaths by Suicide	...	...	...	...	...	...	2	2	2	...	6
62	Deaths from Ill-defined Causes	...	...	...	...	...	...	2	...	...	...	2
63	All other Causes	2	...	1	...	...	2	6	17	20	...	48
	ALL CAUSES	49	23	7	4	11	26	73	151	304	52	700

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